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TOXICITY OF INDUSTRIAL EFFLUENTS

IN ONTARIO

JANUARY 1969 to DECEMBER 1981

Toxicity Unit Staff

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# TOXICITY OF INDUSTRIAL EFFLUENTS IN ONTARIO

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## PREFACE

"Chemical examination alone of a complex industrial waste does not provide sufficient information on their effects on the aquatic biota for the protection of the aquatic environment. Moreover, the toxicity of a complex mixture of wastes and chemicals cannot be determined by chemical means."<sup>(1)</sup>

An organism exposed, under controlled conditions, to these mixtures will provide a summated biological response. Such an exposure is the static 96-hour bioassay.

This basic bioassay can answer a number of questions about a substance:

- "is it toxic?
- how toxic?
- does it vary in toxicity?
- what fraction of the waste is most toxic?
- is the available dilution sufficient to protect fish?
- how effective are treatment methods in reducing toxicity?" (2)

The fundamental elements of the basic, short-term bioassay consist of a series of containers holding dilutions of a toxicant, a container of dilution water, and time. An equal number of test animals (usually fish) are put into each container. The number of dead animals in each container is counted and removed at regular, pre-determined periods.

The unit of measurement of the short term bioassay is the median lethal concentration (LC-50). This value is the concentration which is lethal to 50% of the test animals. The LC-50 concentration always has a time qualification attached. Thus, a 96-hour LC-50 is a concentration of a toxicant that will kill half the test organisms in 96 hours. For example, the effluent from a fully bleached sulphate pulp mill might have a typical 96-hour LC-50 of 25% v/v. (A volume/volume dilution of the waste, 75% water/25% effluent will kill

half the test animals in 96 hours). It is important that the LC-50 not be confused with a "safe concentration" of a toxicant. Usually the safe concentration of a substance or effluent is obtained by multiplying the LC-50 value by an appropriate application factor. Generally, those substances or effluents which do not persist or do not bioaccumulate require less dilution (i.e. a numerically larger application factor) to be rendered harmless. Using ammonia as an example such an application factor would be  $0.1 \times 96\text{-hour LC-50}$  or  $0.1 \times 0.2 \text{ mg/L} = 0.02 \text{ mg/L}$ .

Those substances or effluents which are more persistent or bioaccumulate will require much greater dilution (i.e. a numerically smaller application factor) to achieve a safe, no effect concentration in the environment. Such an application factor would be  $0.01 \times 96\text{-hour LC-50}$ . Substances in this category would be metals (zinc, mercury) and higher molecular weight chlorinated organics (PCB). The LC-50 itself, therefore, quantifies the potency of a waste (or lethality) and is valuable for comparison of processes, treatments or changes through time.

If an undiluted effluent kills less than half of the test animals in 96 hours then its LC-50 would be theoretically greater than 100% concentration. For practical purposes such an effluent is considered to be marginally lethal. To fully evaluate effluents of this type other bioassay methods involving chronic exposure and/or sub-lethal responses may be required.

More and more industrial and regulatory agencies are turning to the use of bioassays for monitoring and controlling discharges to the aquatic environment. The integrative nature of the test measures the lethality of all the toxicants present acting simultaneously.

#### National Standards of Effluent Control

The federal government has developed liquid effluent guidelines for a number of industrial sectors. These sectors are the chlor-alkali industry, the pulp and paper industry, the fish processing industry, the meat and poultry processing industry, the potato processing industry, the metal finishing industry and the

petroleum refining industry. Chlor-alkali plants, fish processing plants and metal finishing plants have no fish toxicity testing requirements. Legislation regulations for the remaining industries (pulp and paper, meat and poultry products, potato processing and petroleum refining) include minimum bioassay requirements for effluents.

These requirements are expressed in terms of regulations, guidelines and explanatory notes. The standards represent what the federal government expects of industries as a national minimum acceptable control level.

The regulation is a specific law that applies to all relevant situations. These regulations limit the amount of specific contaminants in effluents and define the frequency of monitoring and reporting.

A guideline is not a specific law. It is a statement indicating what practices will be considered by the Environmental Protection Service to be in compliance with the spirit of the law. Failure to comply with a guideline is not itself an offence; however, it may mean that the law itself (e.g. the general prohibition of deleterious discharges expressed in the Fisheries Act) is being violated.

The toxicity guidelines relate the acute lethality of an effluent to a species of fish and these requirements apply to every relevant plant whether new, expanded, or existing. Acute lethality tests involve exposing specified test organisms to samples of effluent under controlled conditions.

While the regulated industries must comply with the regulations from the day they came into force, the guidelines provide administrative flexibility needed to allow the regulatory agencies and the industries time to negotiate and implement a compliance schedule.

The guidelines are a series of notes and recommended best practices dealing with many of the technical aspects of effluent sampling, preparation of the bioassay sample, fish culture and bioassay management.

There are two basic types of bioassays to be run under these regulations and guidelines. The first test is a 24-hour static bioassay which, run monthly, is designed to inform the plant management of the general, overall efficiency of their effluent treatment system. The governing toxicity test is usually a 96-hour flow through test which is run by the Minister or his agent. The governing test is the one which will be used to establish the compliance of the effluent with the appropriate regulations and/or guidelines.

#### Metal Mining Liquid Effluent Regulations and Guidelines (3)

Guidelines for the Measurement of Acute Lethality in Liquid Effluents from Metal Mines.

#### Application

These guidelines apply to every Metal Mine except gold mines.

#### Objective - Governing Toxicity Test

For the purposes of these Guidelines the objective for each undiluted effluent deposited is that no more than 50% of the fish die in a composite sample within 96 hours when tested according to the procedure described as the Final Evaluation Test Procedure for Acute Lethality. This test is a 96-hour flow through bioassay.

#### Monitoring: Routine Toxicity Test

A Mine Operator should carry out an acute lethality test on a composite sample of each undiluted effluent deposited or have these tests carried out on his behalf in accordance with the test procedure described as Screening Test Procedure for Acute Lethality, every three months. This test is a 96-hour static bioassay.

#### Meat and Poultry Products Plant Liquid Effluent Regulations and Guidelines (4)

##### Application

The guidelines apply to every plant with facilities intended primarily for the slaughtering, dressing, processing or edible or inedible rendering of any meat or poultry products and associated livestock holding and receiving facilities and truck washing areas.

##### Objectives - Governing Toxicity Test

The effluent deposited by new, expanded or existing plant does not meet the objectives of these guidelines if more than 50% of the test fish die in a 96-hour flow through bioassay.

##### Monitoring - Routine Toxicity Test

The owner of a new, expanded or existing plant should conduct the acute lethality test on a composite sample as determined by the type and size of plant. The monitoring test is a 96-hour static bioassay.

#### Petroleum Refinery Effluent Regulations and Guidelines (5)

##### Application

These guidelines apply to all existing refineries.

### Objective - Governing Toxicity Test

For the purpose of these Guidelines, refinery liquid effluent and once-through cooling water that is deposited is not acceptable if more than 50% of the fish die in the bioassay sample when tested according to the bioassay procedure. The governing toxicity test is to be a 96-hour flow-through bioassay.

### Monitoring: Routine Toxicity Test

The owner of a refinery is requested to determine once a month or as requested by the Minister the acute toxicity of liquid effluent and once through cooling water being deposited by the refinery by carrying out 24-hour static bioassays. Compliance in this test is indicated by at least 50% survival rate of the fish in the bioassay sample.

### Potato Processing Plant Liquid - Effluent Regulations and Guidelines (6)

#### Application

These guidelines apply to every potato processing plant.

### Objective - Governing Toxicity Test

For the purpose of these guidelines the objective for each undiluted effluent deposited is that no more than 50% of the fish die in a composite sample within 96 hours when tested according to the Test Procedure for 96-hour Acute Lethality Continuous Flow Test.

### Monitoring - Routine Toxicity Test

The owner of a plant should carry out an acute lethality test on a composite sample of each undiluted effluent deposited or have these tests carried out on his behalf, in accordance with the Test Procedure for 24-hour Acute Lethality Static Test. Compliance in this test is indicated by at least 50% survival rate of the fish in the bioassay sample.

Guidelines for the Pulp and Paper Effluent Regulations Promulgated  
Under the Fisheries Act. (7)

Application

These guidelines apply to all new, expanded, altered or existing mills.

Objective - Governing Toxicity Test

For the purpose of these guidelines the objective is for a mixture of 65% deposited effluent, 35% dilution water to permit at least 80% fish survival in a 96-hour flow through bioassay when tested according to the "Test for Determining Toxicity of Mill Effluent".

Monitoring - Routine Toxicity Test

Two monitoring bioassays are outlined for deposited effluents from the Pulp and Paper industry.

The first test is a 96-hour flow through test similar to the governing toxicity test but using fewer replications and fish. The second test can be either a 96-hour flow through bioassay or a 96-hour test with the test solutions renewed every 24 hours.

It is generally recommended that the first of the monitoring bioassays be run by the regulatory agency while the industry is encouraged to run the second test.

Provincial Standards of Effluent Control

Provincial or local governments may also impose more stringent standards than the federal requirements. The more stringent requirements will prevail.

The Ontario Water Resources Act; Chapter 332, Section 32(8)  
prohibits any municipality or person from discharging to water any

substance that may impair water quality. Similarly, in the Ontario Environmental Protection Act Chap 86, Section 14(9) no one may discharge anything to the natural environment that causes or is likely to cause injury or damage, to property, plant or animal lie.

Under the Canada-Ontario accord, Ontario has agreed to establish and enforce effluent requirements at least as stringent as the agreed Federal baseline requirements. These requirements will apply immediately to all new or expanded production facilities and as rapidly as possible in all other cases.

The Toxicity Unit of the Water Resources Branch, Limnology and Toxicity Section, maintains facilities at the Rexdale laboratory to complete static and, depending on the logistics, flow through bioassay for the completion of these tests can be made by contacting the Toxicity Unit Laboratory at 416-248--3011.

#### Summary of Regulatory Bioassays

| Industry           | Bioassay                |                    |
|--------------------|-------------------------|--------------------|
|                    | Monitoring Test         | Governing Test     |
| Metal Mining       | 96-hr Static            | 96-hr flow through |
| Meat & Poultry     | 96-hr Static            | 96-hr flow through |
| Petroleum Refinery | 24-hr Static            | 96-hr flow through |
| Potato Processing  | 24-hr Static            | 96-hr flow through |
| Pulp and Paper     | 96-hr flow through*     | 96-hr flow through |
|                    | 96-hr flow through**    |                    |
|                    | or                      |                    |
|                    | 96-hr Static, renewed** |                    |

\* test run by regulatory agency

\*\* test run by industry

- 1) Standard Methods for the Examination of Water and Wastewater.  
14th ed. 1975. Prepared and published jointly by: American Public Health Association, American Water Works Association, Water Pollution Control Federation.



- 2) The A.B.C.'s of Pollutant Bioassay Using Fish. John B. Sprague. Symposium on Environmental Monitoring, June, 1972. Annual Meeting of the American Society for Testing and Materials.
- 3) Metal Mining Liquid Effluent Regulations and Guidelines. Fisheries and Environment Canada, Environmental Protection Service, Regulations Codes and Protocols. Report EPS 1-WP-77-1. Water Pollution Control Directorate, April 1977.
- 4) Meat and Poultry Products Plant Liquid Effluent Regulations and Guidelines. Fisheries and Environment Canada. Environmental Protection Service, Regulations, Codes and Protocols Report E.P.S. 1-WP-77-2. Water Pollution Control Directorate, July, 1977.
- 5) Petroleum Refinery Effluent Regulations and Guidelines. Environment Canada, Environmental Protection Service, Regulations and Codes and Protocols Report E.P.S. 1-WP-74-1. Water Pollution Control Directorate, January 1974.
- 6) Potato Processing Plant Liquid Effluent Regulations and Guidelines. Fisheries and Environment Canada, Environmental Protection Service, Regulations Codes and Protocols Report E.P.S. 1-WP-77-4. Water Pollution Control Directorate, November, 1977.
- 7) Guidelines for the Pulp and Paper Effluent Regulations. Environment Canada, Environmental Protection Service, Regulation Codes and Protocols Report E.P.S. 1-WP-77-2. Water Pollution Control Directorate, May, 1972.
- 8) The Ontario Water Resources Act. Revised Statutes of Ontario, 1970. Chapter 332. March 1977.
- 9) The Environmental Protection Act, 1971. Statutes of Ontario 1971. Chapter 86. October, 1976.



SECTION 1

## INTRODUCTION

This record of waterborne industrial waste quality across the province has been compiled under one cover to provide a background for current effluent conditions. The data has been compiled from bioassay tests requested by regional staff, from January 1969 to December 1981. Chemical data, when available, was included. More detailed information would be held by the local regional office.

The review is designed to assist pollution abatement staff compare industrial waste quality through time and within similar industrial groups. This information will be updated at the end of each calendar year.

Locating Industrial Data

Information is separated into two sections.

## 1) Industry Description Sheets identify:

- company name
- location
- receiving water
- background history
- production output
- effluent flow rate
- chemistry
- comments

## 2) Bioassay Data Summary Sheets identify:

- company name
- location
- discharge
- test number
- sample date
- static 96 hour  $LC_{50}$  data
- continuous flow 96-hour  $LC_{50}$  data
- comments

Both sections list the industries alphabetically by name.

### Indexes

All industries are listed in three indexes for easy cross reference.

- Index I - industries listed by region
  - Index II - industries listed by process type
  - Index III - industries ranked by lethality for each region
    - industries are ranked according to four categories of lethality from most lethal to non lethal
- |                          |   |
|--------------------------|---|
| 96-hour LC <sub>50</sub> | <ul style="list-style-type: none"> <li>&lt;10% v/v (most lethal)</li> <li>&gt;10% v/v &lt; 50% v/v</li> <li>&gt;50% v/v &lt; 100% v/v</li> <li>&gt;100% v/v (non lethal)</li> </ul> |
|--------------------------|---|
- each industry was placed in the category of its most lethal effluent.

### Application

This compendium is designed as a handbook for field use by industrial abatement officers, and to provide easy reference to similar processes for the province. New data may be entered by regional staff to update locale industrial profiles as it is generated.

### Bioassay Sample Collection

Generally bioassay samples should be scheduled for testing by contacting the Toxicity Unit (416-248-3011) four weeks in advance. Allowance is made, however, for emergency situations such as spills and fish kills.

Contingency containers should be kept on hand by regional staff for emergency use. Five gallon (20 L) plastic containers will suffice provided they withstand handling during transport. Containers should be rinsed with sample, filled to capacity to exclude air, and kept cool ( $4^{\circ}\text{C}$ ) if possible. All containers should be labelled indicating company name, location, sample site, date and collection personnel.

A minimum of 20 gallons of sample are required for a regulatory 96-hour static  $\text{LC}_{50}$  test using rainbow trout. Smaller volume samples may be tested using other aquatic organisms but should be submitted only when larger volume collections are impossible or impractical. It must be emphasized, however, that small volume samples may produce logistic difficulties which would affect interpretation of the results.

Long-term industrial survey programs may be planned in advance with Toxicity Unit staff in order that major blocks of laboratory time are made available. Bioassay testing protocols can be designed to meet specific needs, as well as to identify and to evaluate the contribution of toxicants in industrial wastes. Recent programs have incorporated a task force approach involving regional staff, laboratory services analytical groups and the Toxicity Unit to provide a more comprehensive investigation.

#### Acknowledgements

Review and updating of this document was provided as one of the contractual duties provided by EPS consultant support. This support was arranged through a standing agreement with Environment Canada, EPS Ontario Region. EPS support has assisted the Ministry in the collection, testing, reporting and final compilation of biological monitoring of industrial waste discharges throughout the Province.

SECTION 2

INDEX 1  
Industries Identified by Region

CENTRAL REGION (C)

|   |                |
|---|----------------|
| Alchem Chemical Co. Ltd.                | Burlington     |
| Ashland Oil Co. Ltd.                    | Mississauga    |
| Borg-Warner                             | Coburg         |
| British Petroleum (BP)                  | Bronte         |
| Chemical Development of Canada Co. Ltd. | Longford Mills |
| Consolidated Bathurst                   | Whitby         |
| Douglas Aircraft                        | Malton         |
| Gulf Oil                                | Clarkson       |
| Kimberly-Clark                          | Huntsville     |
| Lindsay S.T.P.                          | Lindsay        |
| P. L. Robertston Co. Ltd                | Milton         |
| Shell Canada                            | Oakville       |
| Skyway S.T.P.                           | Burlington     |
| Union Carbide                           | Lindsay        |

SOUTHEASTERN REGION (SE)

|  |               |
|--|---------------|
| Alexandria Municipal Discharge               | Alexandria    |
| Ault's Foods                                 | Winchester    |
| Bakelite Thermosets (formerly Union Carbide) | Belleville    |
| British Cellophane Ltd (B.C.L.)              | Cornwall      |
| Canada Starch                                | Cardinal      |
| Canadian Industries Ltd. (C.I.L.)            | Cornwall      |
| Canadian International Paper (C.I.P.)        | Hawkesbury    |
| Carnation Foods                              | Alexandria    |
| Celanese                                     | Cornwall      |
| Celanese                                     | Millhaven     |
| Chromasco                                    | Haley Station |
| Collie Fabrics                               | Almonte       |
| Consolidated Textiles                        | Alexandria    |
| Corby Distillery                             | Corbyville    |
| Cornwall Chemicals                           | Cornwall      |
| Cornwall Municipal Discharge                 | Cornwall      |
| Courtaulds                                   | Cornwall      |
| Deloro Smelting and Refining                 | Deloro        |
| Domtar Chemicals                             | Trenton       |
| Domtar Fine Papers                           | Cornwall      |
| Domtar Packaging                             | Trenton       |
| Dow Badishe                                  | Arnprior      |
| Dupont                                       | Kingston      |
| Dupont                                       | Maitland      |
| Dussek Brothers                              | Belleville    |
| E. B. Eddy Forest Products                   | Ottawa        |
| Eurocurtain                                  | Cornwall      |
| Haley Industries                             | Haley Station |
| Hawkesbury Municipal Discharge               | Hawkesbury    |
| Iroquois Municipal Discharge                 | Iroquois      |
| Ivaco  | L'original    |
| Kraft Foods                                  | Ingleside     |
| Madawaska Mines                              | Bancroft      |
| Northern Telecom                             | Ottawa        |

Nestle's Foods  
 Nitrochem  
 Rohm and Haas  
 Strathcona Paper  
 Trent Valley Paper

Chesterville  
 Maitland  
 Morrisburg  
 Strathcona  
 Glen Miller

#### NORTHEASTERN REGION (NE)

Abitibi Price Inc.  
 Abitibi Price Inc.  
 Abitibi Price Inc.  
 Agnew Lake Mine  
 Agnico Eagle  
 Algoma Steel  
 Canadaka Mines  
 Canadian Industries Ltd. (C.I.L.)  
 Canadian Industries Ltd. (C.I.L.)  
 Canadian Smelting and Refining  
 Cobalt Camp  
 Denison Mines  
 Denison Mines  
 Dome Mine  
 Dupont  
 E. B. Eddy Forest Products  
 Falconbridge  
 Falconbridge  
 Falconbridge  
 Inco  
 Inco  
 Inco  
 Inco  
 Kamkotia Mine  
 Kanichee  
 Kerr Addison Mine  
 Kidd Creek Mines Ltd.  
 Lacours Lumber  
 MacMillan Bloedel  
 Normick Ltd.  
 Pamour Mine  
 Rio Algom  
 Rio Algom  
 Rio Algom  
 Rio Algom  
 Rio Algom  
 Schumacher Mine  
 Sherman Mine  
 Spruce Falls Power & Paper Co.  
 Teck Corporation  
 Willroy Mine

Iroquois Falls  
 Sault Ste Marie  
 Smooth Rock Falls  
 Agnew Lake  
 Glenn Lake  
 Sault Ste Marie  
 Elliot Lake  
 Parry Sound  
 Sudbury  
 Cobalt  
 Farr Creek  
 Stanrock  
 Denison Property  
 Timmins  
 North Bay  
 Espanola  
 Emery Creek  
 Fecunis Creek  
 Moose Lake  
 Coniston  
 Copper Cliff  
 Nolin's Creek  
 Levack  
 Timmins  
 Temagami  
 Virginiatown  
 Porcupine  
 Calstock  
 Sturgeon Falls  
 Cochrane  
 Timmins  
 Crotch Lake  
 Nordic Property  
 Pronto Property  
 Quirke Property  
 Panel Mine  
 Timmins  
 North Bay  
 Kapuskasing  
 Cart Lake  
 Kirkland Lake

#### NORTHWESTERN REGION (NW)

Abitibi Price Inc.  
 Abitibi Price Inc.  
 Abitibi Provincial

Fort William  
 Thunder Bay  
 Port Arthur

American Can of Canada  
 Boise-Cascade  
 Boise-Cascade  
 Bulore Mine  
 Campbell-Red Lake  
 Dickenson Gold Mines  
 Domtar Packaging  
 Great Lakes Forest Products  
 Great Lakes Forest Products  
 Inco  
 Industrial Grain Products  
 Kimberly-Clark of Canada  
 Noranda Mines  
 Northern Wood Preservers  
 Reichold Chemicals  
 Wilanour Resources

#### SOUTHWESTERN REGION (SW)

Allied Chemicals  
 Amerock Ltd.  
 B.A.S.F.  
 Canadian Industries Ltd. (C.I.L.)  
 Chrysler of Canada  
 Dow Chemical  
 Dupont of Canada  
 Esso Chemical  
 Ethyl Corporation  
 Fiberglass of Canada  
 Ford of Canada  
 Ford of Canada  
 Freedland Industries  
 Holmes Insulation  
 Imperial Oil (Refinery)  
 Ingersoll STP  
 Ladney Properties  
 Luster Division, National Hardware  
 Monsanto Co. Ltd.  
 Petrosar  
 Polysar  
 Scott Road Dump  
 Shell Canada  
 Suncor  
 Tricil  
 Welland Chemical  
 Windsor Bumper Co.

#### WEST-CENTRAL REGION (WC)

Atlas Steel  
 Beaver Woodfibre  
 B. F. Goodrich  
 Canadian Oxy Chemical  
 Cyanamid  
 Dofasco  
 Domtar Construction

Marathon  
 Fort Frances  
 Kenora  
 Red Lake  
 Red Lake  
 Balmer Lake  
 Red Rock  
 Dryden  
 Thunder Bay  
 Shebondowan  
 Thunder Bay  
 Terrace Bay  
 Geco  
 Thunder Bay  
 Thunder Bay  
 Red Lake

Amherstburg  
 Meaford  
 Wyandotte, Michigan  
 Courtright  
 Windsor  
 Sarnia  
 Corunna  
 Sarnia  
 Corunna  
 Sarnia  
 St. Thomas  
 Windsor  
 Kingsville  
 Sarnia  
 Sarnia  
 Ingersoll  
 Moore Township  
 Wallaceburg  
 Sarnia  
 Moore Township  
 Sarnia  
 Sarnia  
 Corunna  
 Sarnia  
 Moore Township  
 Sarnia  
 Windsor

Welland  
 Thorold  
 Niagara  
 Fort Erie  
 Welland  
 Hamilton  
 Thorold



Domtar Fine Papers  
Elmira S.T.P.  
Fraser Inc.  
General Motors  
Hahn Brass  
Kimberly-Clark of Canada  
Ontario Paper  
Paris Municipal Treatment Plant  
Penman's Textiles  
Stelco  
Stelco  
Stelco  
Texaco  
Uniroyal

St. Catherines  
Elmira  
Thorold  
St. Catherines  
New Hamburg  
St. Catherines  
Thorold  
Paris  
Paris  
Hamilton  
Nanticoke  
Welland  
Nanticoke  
Elmira

SECTION 3

INDEX II  
Industry Grouping by Basic Process Type

Pulp and Paper

|  |                   |
|--|-------------------|
| Abitibi Price Inc.                             | Fort Williams     |
| Abitibi Price Inc.                             | Iroquois Falls    |
| Abitibi Price Inc.                             | Sault Ste Marie   |
| Abitibi Price Inc.                             | Smooth Rock Falls |
| Abitibi Price Inc.                             | Thunder Bay       |
| Abitibi Provincial Paper                       | Port Arthur       |
| American Can of Canada                         | Marathon          |
| Beaver Wood Fiber Co. Ltd.                     | Thorold           |
| Boise-Cascade                                  | Fort Frances      |
| Boise-Cascade                                  | Kenora            |
| Canadian International Paper Co. Ltd. (C.I.P.) | Hawkesbury        |
| Domtar Construction                            | Thorold           |
| Domtar Fine Papers                             | St. Catherines    |
| Domtar Fine Papers Co. Ltd.                    | Cornwall          |
| Domtar Packaging Co. Ltd.                      | Red Rock          |
| Domtar Packaging Co. Ltd.                      | Trenton           |
| E. B. Eddy Forest Products                     | Espanola          |
| E. B. Eddy Forest Products                     | Ottawa            |
| Fraser Inc.                                    | Thorold           |
| Great Lakes Forest Products                    | Dryden            |
| Great lakes Forest Products                    | Thunder Bay       |
| Kimberly-Clark of Canada                       | Huntsville        |
| Kimberly-Clark of Canada                       | St. Catherines    |
| MacMillan Bloedel                              | Sturgeon Falls    |
| Kimberly-Clark of Canada                       | Terrace Bay       |
| Ontario Paper Co. Ltd.                         | Thorold           |
| Spruce Falls Power and Paper Co.               | Kapuskasing       |
| Strathcona Paper Co. Ltd.                      | Strathcona        |
| Trent Valley Paperboards                       | Glen Miller       |

Basin Iron and Steel

|                                       |                 |
|---------------------------------------|-----------------|
| Algoma Steel                          | Sault Ste Marie |
| Atlas Steel                           | Welland         |
| Dofasco (Dominion Foundary and Steel) | Hamilton        |
| Ivaco                                 | L'Orignal       |
| Stelco (Steel Co. of Canada Ltd.)     | Hamilton        |
| Stelco                                | Nanticoke       |
| Stelco                                | Welland         |

Mining and Metallurgical

|                                |                  |
|--------------------------------|------------------|
| Agnew Lake Mine                | Agnew Lake       |
| Agnico Eagle                   | Glenn Lake       |
| Bulore Mine                    | Red Lake         |
| Campbell-Red Lake Mine         | Red Lake         |
| Canadaka Mines                 | Elliot Lake      |
| Canadian Smelting and Refining | North Bay        |
| Cobalt Camp                    | Farr Creek       |
| Deloro Smelting and Refining   | Deloro           |
| Denison Mines                  | Denison Property |

Mining and Metallurgical (cont'd)

|                       |                   |
|-----------------------|-------------------|
| Denison Mines         | Stanrock Property |
| Dickenson Gold Mines  | Balmer Lake       |
| Dome Mines            | Timmins           |
| Falconbridge          | Emery Creek       |
| Falconbridge          | Fecunis Creek     |
| Falconbridge          | Moose Lake        |
| Inco                  | Coniston          |
| Inco                  | Copper Cliff      |
| Inco                  | Levack            |
| Inco                  | Nolin's Creek     |
| Inco                  | Shebandowan       |
| Kamkotia Mine         | Timmins           |
| Kanichee Mine         | Temagami          |
| Kerr Addison          | Virginiatown      |
| Kidd Creek Mines Ltd. | Porcupine         |
| Madawaska Mines       | Bancroft          |
| Noranda Mines         | Geco              |
| Pamour Mine           | Timmins           |
| Rio Algom Mines       | Crotch Lake       |
| Rio Algom Mines       | Nordic Property   |
| Rio Algom Mines       | Pronto Property   |
| Rio Algom Mines       | Quirke Property   |
| Rio Algom Mines       | Panel Mine        |
| Schumacher Mine       | Timmins           |
| Sherman Mine          | North Bay         |
| Teck Corp.            | Cart Lake         |
| Willroy Mine          | Kirkland Lake     |
| Wilanour Resources    | Red Lake          |

Food Processing

|                           |              |
|---------------------------|--------------|
| Ault's Foods              | Winchester   |
| Canada Starch             | Cardinal     |
| Carnation Foods           | Alexandria   |
| Corby Distillery          | Corbyville   |
| Industrial Grain Products | Thunder Bay  |
| Kraft Foods               | Ingleside    |
| Nestle's Foods            | Chesterville |

Miscellaneous - Automotive

|                    |                |
|--------------------|----------------|
| Chrysler of Canada | Windsor        |
| Ford of Canada     | St. Thomas     |
| Ford of Canada     | Windsor        |
| General Motors     | St. Catherines |

- Electroplating

|                                    |               |
|------------------------------------|---------------|
| Amerock Ltd.                       | Meaford       |
| Chromasco                          | Haley Station |
| Freedland Industries               | Kingsville    |
| Hahn Brass                         | New Hamburg   |
| Haley Industries                   | Haley Station |
| Luster Division, National Hardware | Wallaceburg   |
| P. L. Robertson Co. Ltd.           | Milton        |
| Windsor Bumper Co.                 | Windsor       |

## - Textiles

|                                  |            |
|----------------------------------|------------|
| British Cellophane Ltd. (B.C.L.) | Cornwall   |
| Celanese                         | Cornwall   |
| Celanese                         | Millhaven  |
| Collie Fabrics                   | Almonte    |
| Consolidated Textiles            | Alexandria |
| Courtaulds                       | Cornwall   |
| Eurocurtain                      | Cornwall   |
| Penman's Textiles                | Paris      |

## - Service Industries

|                                |                |
|--------------------------------|----------------|
| Alexandria Municipal Discharge | Alexandria     |
| Cornwall Municipal Discharge   | Cornwall       |
| Dussek Brothers                | Belleville     |
| Elmira Municipal Discharge     | Elmira         |
| Hawkesbury Municipal Discharge | Hawkesbury     |
| Ingersoll S.T.P.               | Ingersoll      |
| Iroquois Municipal Discharge   | Iroquois       |
| Lindsay S.T.P.                 | Lindsay        |
| Paris S.T.P.                   | Paris          |
| Skyway S.T.P.                  | Burlington     |
| Tricil                         | Moore Township |

## - Others

|                          |              |
|--------------------------|--------------|
| Bakelite Thermosets      | Belleville   |
| Consolidated Bathurst    | Whitby       |
| Douglas Aircraft         | Malton       |
| Holmes Insulation        | Sarnia       |
| Ladney Properties        | Moore Towsn. |
| Lacours Lumber           | Calstock     |
| Normick Ltd.             | Cochrane     |
| Northern Telecom         | Ottawa       |
| Northern Wood Preservers | Thunder Bay  |
| Scott Road Dump          | Sarnia       |

Chemical Manufacturing (including organic compounds, inorganic compounds, petrochemicals, polymers, fertilizers and acids)

|                                   |                     |
|-----------------------------------|---------------------|
| Alchem Chemical Co. Ltd.          | Burlington          |
| Allied Chemical Co. Ltd.          | Amherstburg         |
| Ashland Oil                       | Mississauga         |
| B.A.S.F.                          | Wyandotte, Michigan |
| B. F. Goodrich                    | Niagara             |
| Borg-Warner                       | Coburg              |
| British Petroleum (BP)            | Bronte              |
| Canadian Industries Ltd. (C.I.L.) | Cornwall            |
| Canadian Industries Ltd. (C.I.L.) | Courtright          |
| Canadian Industries Ltd. (C.I.L.) | Parry Sound         |
| Canadian Industries Ltd. (C.I.L.) | Sudbury             |
| Canadian Oxy Chemicals            | Fort Erie           |

Chemical Manufacturing (cont'd)

|                                 |                |
|---------------------------------|----------------|
| Chemical Developments of Canada | Longford Mills |
| Cornwall Chemicals              | Cornwall       |
| Cyanamid of Canada              | Welland        |
| Domtar Chemicals                | Trenton        |
| Dow Badishe                     | Arnprior       |
| Dow Chemicals                   | Sarnia         |
| Dupont of Canada                | Corunna        |
| Dupont of Canada                | Kingston       |
| Dupont of Canada                | Maitland       |
| Dupont of Canada                | North Bay      |
| Esso Chemical                   | Sarnia         |
| Ethyl Corp.                     | Corunna        |
| Fiberglass of Canada            | Sarnia         |
| Gulf Oil                        | Clarkson       |
| Imperial Oil (Refinery)         | Sarnia         |
| Monsanto Co. Ltd.               | Sarnia         |
| Nitrochem                       | Maitland       |
| Petrosar                        | Moore Towsp.   |
| Polysar Corp.                   | Sarnia         |
| Reichold Chemicals              | Thunder Bay    |
| Rohm and Haas                   | Morrisburg     |
| Shell Canada                    | Corunna        |
| Shell Canada                    | Oakville       |
| Suncor                          | Sarnia         |
| Texaco                          | Nanticoke      |
| Union Carbide                   | Lindsay        |
| Uniroyal Co. Ltd.               | Elmira         |
| Welland Chemical                | Sarnia         |

SECTION 5

INDEX IV  
Industries Grouped by Watershed

ARCTIC BASIN

|                                  |                   |
|----------------------------------|-------------------|
| Abitibi Price Inc.               | Iroquois Falls    |
| Abitibi Price Inc.               | Smooth Rock Falls |
| Boise Cascade                    | Fort Frances      |
| Boise Cascade                    | Kenora            |
| Bulore Mine                      | Red Lake          |
| Campbell Red lake Mines          | Red Lake          |
| Dickenson Gold Mines             | Balmer Lake       |
| Dome Mines                       | Timmins           |
| Great Lakes Forest Products      | Dryden            |
| Kamkotia Mine                    | Timmins           |
| Kerr Addison Mine                | Virginiatown      |
| Normick Ltd.                     | Cochrane          |
| Pamour Mine                      | Timmins           |
| Schumacher Mine                  | Timmins           |
| Spruce Falls Power and Paper Co. | Kapuskasing       |
| Texasgulf                        | Porcupine River   |
| Wilanour Resources               | Red Lake          |
| Willroy Mine                     | Kirkland Lake     |

LAKE ERIE BASIN

|                                    |                     |
|------------------------------------|---------------------|
| Allied Chemicals                   | Amherstburg         |
| B.A.S.F.                           | Wyandotte, Michigan |
| Canadian Insdustries Ltd. (C.I.L.) | Courtright          |
| Chrysler of Canada                 | Windsor             |
| Dow Chemical                       | Sarnia              |
| Dupont of Canada                   | Corunna             |
| Elmira STP                         | Sarnia              |
| Esso Chemical                      | Sarnia              |
| Ethyl Corp.                        | Corunna             |
| Fiberglass of Canada               | Sarnia              |
| Ford of Canada                     | St. Thomas          |
| Ford of Canada                     | Windsor             |
| Freedland Industries               | Kingsville          |
| Hahn Brass                         | New Hamburg         |
| Holmes Insulation                  | Sarnia              |
| Imperial Oil                       | Sarnia              |
| Ingersoll STP                      | Ingersoll           |
| Monsanto Co. Ltd.                  | Sarnia              |
| Paris MTP                          | Paris               |
| Petrosar                           | Moore Township      |
| Polysar                            | Sarnia              |
| Scott Road Dump                    | Sarnia              |
| Shell Canada                       | Corunna             |
| Stelco                             | Nanticoke           |
| Suncor                             | Sarnia              |

Texaco  
 Tricil  
 Uniroyal  
 Welland Chemical  
 Windsor Bumper Co.

Nanticoke  
 Moore Township  
 Elmira  
 Sarnia  
 Windsor

#### LAKE HURON BASIN

Abitibi Price Inc.  
 Agnew Lake Mine  
 Agnico Eagle  
 Algoma Steel  
 Amerock Ltd.  
 Canadian Industries Ltd. (C.I.L.)  
 Canadian Industries Ltd. (C.I.L.)  
 Canadian Smelting and Refining  
 Chemical Development of Canada  
 Cobalt Camp  
 Denison Mines  
 Denison Mines  
 Dupont of Canada  
 E.B. Eddy Forest Products  
 Falconbridge  
 Falconbridge  
 Falconbridge  
 Inco  
 Inco  
 Inco  
 Inco  
 Kanichee  
 Kimberly-Clark of Canada  
 MacMillan Bloedel  
 Rio Algom  
 Rio Algom  
 Rio Algom  
 Rio Algom  
 Rio Algom  
 Sherman Mine

Sault Ste. Marie  
 Agnew Lake  
 Glenn Lake  
 Sault Ste. Marie  
 Meaford  
 Parry Sound  
 Sudbury  
 North Bay  
 Longford Mills  
 Farr Creek  
 Denison  
 Stanrock  
 North Bay  
 Espanola  
 Emery Creek  
 Fecunis Creek  
 Moose Lake  
 Coniston  
 Copper Cliff  
 Nolin's Creek  
 Levack  
 Temagami  
 Hunstville  
 Sturgeon Falls  
 Crotch Lake  
 Nordic Property  
 Pronto Property  
 Quirke Property  
 Panel Mine  
 North Bay

#### LAKE ONTARIO BASIN

Alchem  
 Atlas Steel  
 Bakelite Thermosets  
 Beaver Woodfibre  
 BF Goodrich  
 Borg-Warner  
 British Petroleum (BP)  
 Canadian Oxy Chemicals  
 Celanese  
 Corby Distillery  
 Cyanamid  
 Deloro Smelting and Refining  
 Dofasco  
 Domtar Chemicals

Burlington  
 Welland  
 Belleville  
 Thorold  
 Niagara  
 Coburg  
 Bronte  
 Fort Erie  
 Millhaven  
 Corbyville  
 Welland  
 Deloro  
 Hamilton  
 Trenton

Domtar Construction  
 Domtar Fine Papers  
 Domtar Packaging  
 Dussek Brothers  
 Fraser Inc.  
 General Motors  
 Gulf Oil  
 Kimberly-Clark of Canada  
 Lindsay STP  
 Madawaska Mines  
 Ontario Paper  
 P.L. Robertson  
 Shell Canada  
 Skyway STP  
 Stelco  
 Stelco  
 Strathcona Paper  
 Trent Valley Paper

Thorold  
 St. Catherines  
 Trenton  
 Belleville  
 Thorold  
 St. Catherines  
 Clarkson  
 St. Catherines  
 Lindsay  
 Bancroft  
 Thorold  
 Milton  
 Oakville  
 Burlington  
 Hamilton  
 Welland  
 Strathcona  
 Glen Miller

#### LAKE SUPERIOR BASIN

Abitibi Price Inc.  
 Abitibi Price Inc.  
 Abitibi Provincial  
 American Can  
 Domtar Packaging  
 Great Lakes Forest Products  
 Inco  
 Industrial Grain Producers  
 Kimberly-Clark of Canada  
 Noranda Mines  
 Northern Wood Preserves  
 Reichold Chemicals

Fort William  
 Thunder Bay  
 Port Arthur  
 Marathon  
 Red Rock  
 Thunder Bay  
 Shebandowan  
 Thunder Bay  
 Terrace Bay  
 Geco  
 Thunder Bay  
 Thunder Bay

#### OTTAWA RIVER BASIN

Ault's Foods  
 Canadian International Paper  
 Chromasco  
 Collie Fabrics  
 Dow Badishe  
 E.B. Eddy Forest Products  
 Haley Industries  
 Hawkesbury Municipal Discharge  
 Ivaco  
 Nestle's Foods

Winchester  
 Hawkesbury  
 Haley Station  
 Almonte  
 Arnprior  
 Ottawa  
 Haley Station  
 Hawkesbury  
 L'Orignal  
 Chesterville

#### ST. LAWRENCE RIVER BASIN

Alexandria Municipal Discharge  
 British Cellophane Ltd. (B.C.L.)  
 Canada Starch  
 Canadian Industries Ltd. (C.I.L.)  
 Carnation Foods  
 Celanese

Alexandria  
 Cornwall  
 Cardinal  
 Cornwall  
 Alexandria  
 Cornwall



Consolidated Textiles  
Cornwall Chemicals  
Cornwall Municipal Discharge  
Courtaulds  
Domtar Fine Papers  
Dupont  
Eurocurtain  
Iroquois Municipal Discharge  
Kraft Foods  
Nitrochem  
Rohm and Haas

Alexandria  
Cornwall  
Cornwall  
Cornwall  
Cornwall  
Maitland  
Cornwall  
Iroquois  
Ingleside  
Maitland  
Morrisburg

SECTION 6

## BIOASSAY DATA SUMMARY SHEETS

The following tables list each Industry and each of their discharges which have been tested by a bioassay. The following information will help the reader understand the tables better:

All tests are assumed to be 96 hour static, aerated bioassays at 15°C, and using rainbow trout (Salmo gairdneri Richardson), unless otherwise stated in the comments sections.

- N.L. means non-lethal at 100%, unless otherwise stated
  - pH and conductivity are the parameters for the 100% sample at 15°C.
  - sample date is the date the sample was collected, not the date it was tested.
  - implant sample indicates a sample taken from a discharge that combines with others before the final industry's discharge.
  - LC50 range is the lethal range - the range where no mortality to total mortality was observed, with no partial mortalities.
  - The LC50 is the lethal concentration of effluent required to kill 50% of the fish population over a specific period of time (e.g. 96 hours or 4 days).
  - the comments section identifies whether any chemical adjustments have been made to the effluent before testing and the availability of other information which might add to the interpretation of the test.
- [e] - a final effluent which discharges to an open waterway.
- [d] - a discharge which has been discontinued
- [p] - a sample taken from an inplant stream
- [l] - a sample taken from an open waterway (i.e. lake, river, etc.)
- [m] - a discharge to municipal sewer
- [s] - intake water or service water

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION         | EFFLUENT          | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS                                       |
|--------------------------------------|-------------------|---------------------------|--------------------|---------------|-------------------|-----|--------------|--|
| ABITIBI-PRICE<br>- Fort William (NW) | Mill Effluent [e] | 08/07/79                  | grab               | 79-106        | 77.5 %            | 6.1 | 295          |  |
|                                      |                   | 08/18/80                  | 4hr comp.          | M3-80-50      | 13 %              | 4.7 |              |  |
|                                      |                   | 08/25/80                  | 4hr grab           | M3-80-59      | 20 %              | 4.7 | 250          |  |
|                                      |                   |                           | comp.              |               |                   |     |              |  |
|                                      |                   | 08/28/80                  | 4hr grab           | M3-80-65      | 18 %              | 4.2 | 600          |  |
|                                      |                   |                           | comp.              |               |                   |     |              |  |
|                                      |                   | 06/30/81                  | 12hr comp.         | M3-81-35      | 54 %              | 5.9 |              |  |
|                                      |                   | 07/14/81                  | grab               | M3-81-55      | 49 %              | 6.1 | 790          |  |
|                                      |                   | 08/04/81                  | grab               | M3-81-83      | 38 %              | 6.2 | 920          |  |
|                                      |                   | 08/10/81                  | grab               | M3-81-92      | 50 %              | 6.6 |              |  |
|                                      | Intake [s]        | 08/07/79                  | grab               | 79-108        | N.L.              | 6.9 | 141          |  |
|                                      | Woodroom [e]      | 08/07/79                  | grab               | 79-107        | 8.3 %             | 4.7 | 330          |  |
|                                      |                   | 08/18/80                  | 4hr comp.          | M3-80-51      | 5 %               | 4.9 |              |  |
|                                      |                   | 25/08/80                  | 4hr grab           | M3-80-60      | 7 %               | 4.9 | 225          |  |
|                                      |                   | 28/08/80                  | 4hr grab           | M3-80-66      | 43 %*             | 6.0 | 160          | - mill was flushing lagoon<br>with clean water |
|                                      |                   |                           | comp.              |               |                   |     |              |  |
|                                      |                   | 06/30/81                  | 12hr comp.         | M3-81-36      | 7 %               | 4.9 |              |  |
|                                      |                   | 07/14/81                  | grab               | M3-81-56      | 6 %               | 5.2 | 1080         |  |
|                                      |                   | 08/04/81                  | grab               | M3-81-85      | 11 %              | 5.4 |              |  |
|                                      |                   | 08/10/81                  | grab               | M3-81-93      | 4.3 %             | 5.1 |              |  |
|                                      |                   |                           |                    |               |                   |     |              |  |
|                                      | SCMP [p]          | 06/30/81                  | 12hr comp.         | M3-81-37      | 14 %              | 6.9 |              |  |
|                                      |                   | 07/13/81                  | grab               | M3-81-57      | 8 %               | 7.0 | 8350         |  |
|                                      |                   | 08/04/81                  | grab               | M3-81-84      | 2.2 %             | 7.2 |              |  |
|                                      |                   | 08/10/81                  | comp.              | M3-81-94      | 6 %               | 7.2 |              |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION          | EFFLUENT                    | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS                                       |
|---------------------------------------|-----------------------------|---------------------------|--------------------|---------------|-------------------|-----|--------------|--|
| ABITIBI-PRICE<br>-Iroquois Falls (NE) | Final [e]                   | 08/03/76                  | grab               | M1-76-18      | 42 %              | 6.8 | 240          | - LC50 range 32-56%                            |
|                                       |                             | 08/03/76                  | grab               | M1-76-18      | 42 %              | 6.8 | 240          | - unaerated LC50 range 32-56%                  |
|                                       |                             | 11/05/80                  | grab               | 80-206        | 18 %              | 4.5 | 1090         |  |
|                                       | Blowpit<br>Discharge [p]    | 08/03/76                  | grab               | M1-76-19      | <10 %             | 4.7 | 2350         | - 10% killed all fish in 12 hours              |
|                                       |                             | 08/03/76                  | grab               | M1-76-19      | <10 %             | 4.7 | 2350         | - unaerated 10% killed all fish in 12 hours    |
|                                       |                             |                           |                    |               |                   |     |              |  |
| ABITIBI-PRICE<br>- S.S. Marie (NE)    | Main Sewer<br>Effluent [e]  | 09/13/76                  | grab               | M1-76-33      | 18 %              | 5.1 | 325          | - unaerated                                    |
|                                       |                             | 09/13/76                  | grab               | M1-76-33      | 24 %              | 5.1 | 325          | - LC50 range 18-32 %                           |
|                                       |                             | 07/11/77                  | grab               | M1-77-30      | 26 %              | 6.5 | 230          | - unaerated                                    |
|                                       |                             | 07/11/77                  | grab               | M1-77-30      | <100 %            | 6.5 | 230          | - 100 % killed all fish in 72 hrs.             |
|                                       |                             | 03/09/81                  | grab               | 81-24         | 14 %              | 6.5 | 305          |  |
| ABITIBI-PRICE<br>- Smooth Rock Falls  | Foam Lagoon [e]<br>at plant | 07/06/76                  | grab               | M1-76-13      | 20 %              |     |              | - unaerated                                    |
|                                       |                             | 07/06/76                  | grab               | M1-76-13      | 37 %              |     |              |  |
|                                       |                             | 07/20/76                  | grab               | M1-76-15      | <10 %             | 7.5 | 280          | - unaerated - 10 % killed all fish in 33 hours |
|                                       |                             | 07/20/76                  | grab               | M1-76-15      | 11 %              | 7.5 | 280          |  |
|                                       | Back Ravine<br>Effluent [d] | 11/12/80                  | grab               | 80-207        | 7 %               | 2.5 | 2000         |  |
|                                       |                             | 07/27/76                  | grab               | M1-76-16      | 21 %              |     |              | - unaerated                                    |
|                                       |                             | 07/27/76                  | grab               | M1-76-16      | 70 %              |     |              |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION           | EFFLUENT                                | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS                            |
|--|---|---------------------------|--------------------|---------------|-------------------|-----|--------------|-------------------------------------|
| ABITIBI-PRICE<br>- Sturgeon Falls (NE) | Intake [s]                              | 11/26/79                  | grab               | 79-179        | N.L.              | 6.8 | 50           |                                     |
|  | Heavy Solids<br>Sewer [p]               | 11/26/79                  | grab               | 79-183        | 3.5 %             | 6.1 | 950          |                                     |
|  | Floatation<br>Clarifier Dis. [e]        | 08/15/77                  | grab               | M1-77-68      | 50 %              | 6.1 | 390          | - LC50 range 30-65%                 |
|  |   | 11/26/79                  | grab               | 79-182        | 45 %              | 6.0 | 275          |                                     |
|  | Uncontaminated<br>Sewer [e]             | 08/15/77                  | grab               | M1-77-70      | N.L.              | 6.7 | 95           |                                     |
|  |   | 11/26/79                  | grab               | 79-180        | N.L.              | 7.0 | 65           |                                     |
| ABITIBI-PRICE<br>- Thunder Bay (NW)    | Spent Sulfite<br>liquor to<br>river [e] | 08/15/79                  | grab               | M1-77-69      | < 3 %             | 5.5 | 8400         |                                     |
|  |   | 11/26/79                  | grab               | 79-181        | 5.4 %             | 7.9 | 8000         |                                     |
|  | Pulp Mill<br>Effluent [e]               | 07/25/77                  | grab               | M1-77-50      | 14 %              | 4.8 | 525          | - LC50 range 10-20%                 |
|  |   | 08/12/80                  | 24hr comp.         | M3-80-47      | 26 %              | 6.6 | 600          |                                     |
|  |   | 08/26/80                  | 24hr comp.         | M3-80-63      | 22 %              | 4.3 |              |                                     |
|  |   | 08/29/80                  | 24hr comp.         | M3-80-68      | 21 %              | 3.9 | 510          |                                     |
|  |   | 06/15/81                  | 12 hr comp.        | M3-81-17      | 13%               | 4.0 | 760          |                                     |
|  |   | 06/15/81                  | 12hr comp.         | M3-81-81      | 16%               | 3.3 | 760          | with nets split with<br>M3-81-17    |
|  |   | 06/15/81                  | 12hr comp.         | M3-81-81      | 7 %               | 3.3 | 760          | without nets-split with<br>M3-81-17 |
|  |   |                           |                    |               |                   |     |              |                                     |
|  |   |                           |                    |               |                   |     |              |                                     |
|  | Woodroom<br>Effluent [p]                | 08/02/77                  | grab               | M1-77-55      | 14 %              | 4.9 | 280          | - LC50 range 10-20 %                |
|  |   |                           |                    |               |                   |     |              |                                     |
|  |   |                           |                    |               |                   |     |              |                                     |
|  |   |                           |                    |               |                   |     |              |                                     |
|  |   |                           |                    |               |                   |     |              |                                     |
|  |   |                           |                    |               |                   |     |              |                                     |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                      | EFFLUENT                             | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS  |
|---|--------------------------------------|---------------------------|--------------------|---------------|-------------------|-----|--------------|---|
| ABITIBI PROVINCIAL<br>PAPER<br>- Thunder Bay (NW) | Total Mill<br>Effluent [e]           | 08/02/77                  | grab               | M1-77-54      | <10 %             | 4.6 | 1150         | - 10 % killed all fish<br>in 48 hours                         |
|   |                                      | 08/07/79                  | grab               | 79-104        | >100 %            | 5.6 | 180          | - 10 % mortality in 100 %                                     |
|   |                                      | 08/12/80                  | 24hr comp.         | M3-80-46      | N.L.              | 6.1 | 150          |   |
|   |                                      | 08/26/80                  | 24hr comp.         | M3-89-62      | N.L.              | 6.1 | 150          |   |
|   |                                      | 08/29/80                  | 24hr comp.         | M3-80-67      | >100 %            | 6.6 | 245          | - 10 % mortality in 100 %                                     |
|   |                                      | 06/14/81                  | 2x12hrcomp.        | M3-81-18      | N.L.              | 6.4 | 215          |   |
|   | Fine Paper<br>Mill Effluent [d]      | 07/25/77                  | grab               | M1-77-51      | 14 %              | 4.0 | 440          | - LC50 range 10-20 %  |
|   | Intake [s]                           | 08/07/79                  | grab               | 79-105        | N.L.              | 7.4 | 265          |   |
|   | Tailings<br>Slurry [p]               | 08/22/79                  | grab               | 79-146        | N.L.              | 8.3 | 2930         | - unaerated   |
|   |                                      | 08/22/79                  | grab               | 79-124        | N.L.*             | 8.7 | 2550         | - unaerated-diluted with<br>Ministic creek water<br>* at 30 % |
| AGNEW LAKE MINE<br>- Elliot Lake (NE)             | Tailings Pond [e]                    | 06/10/77                  | grab               | M1-77-17      | N.L.              | 7.0 | 285          | - unaerated   |
|   |                                      | 06/10/77                  | grab               | M1-77-17      | N.L.              | 7.0 | 285          |   |
|   |                                      | 08/22/79                  | grab               | 79-124        | 47 %              | 8.7 | 2550         | - LC50 range 30-73 % -<br>unaerated                           |
|   |                                      | 08/22/79                  | grab               | 79-124        | N.L.*             | 8.7 | 2550         | - unaerated-diluted with<br>Ministic creek water<br>* at 30 % |
|   | Drainage Ditch<br>(John's Creek) [e] | 09/20/76                  | grab               | M1-76-39      | N.L.              | 7.1 | 118          | - unaerated   |
|   |                                      | 06/03/77                  | grab               | M1-77-12      | N.L.              | 7.0 | 112          | - unaerated   |
|   |                                      | 06/10/77                  | grab               | M1-77-16      | N.L.              | 6.6 | 210          | - unaerated   |
|   |                                      | 06/10/77                  | grab               | M1-77-16      | N.L.              | 6.6 | 210          | - unaerated   |
|   |                                      | 08/22/79                  | grab               | 79-145        | N.L.              | 7.0 | 210          | - unaerated   |
|   |                                      |                           |                    |               |                   |     |              |   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION          | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS    |
|---------------------------------------|---|---------------------------|--------------------|---------------|-------------------|------|--------------|-------------|
| AGNEW LAKE MINE<br>- Elliot Lake (NE) | Ministic Creek<br>upstream from<br>mine [1]     | 09/20/76                  | grab               | M1-76-38      | N.L.              | 7.0  | 56           | - unaerated |
|                                       |   | 08/22/79                  | grab               | 79-130        | N.L.              | 7.0  | 53           | - unaerated |
|                                       | Ministic Creek<br>downstream<br>of mine [1]     | 06/03/77                  | grab               | M1-77-11      | N.L.              | 7.2  | 61           |             |
| AGNICO EAGLE<br>- Glen Lake (NE)      | Glen Lake<br>Discharge                          | 07/20/77                  | grab               | M1-77-46      | N.L.              | 7.8  | 300          | - unaerated |
|                                       |   | 07/20/77                  | grab               | M1-77-46      | N.L.              | 7.8  | 300          |             |
| ALCHEM<br>- Burlington (WC)           | Stormwater<br>Drainage<br>Sump [e]              | 06/07/77                  | grab               | 77-84         | N.L.              | 8.1  | 1400         | - unaerated |
| ALEXANDRIA MUNICIPAL<br>DISCHARGE     | Influent [p]                                    | 06/25/81                  | grab               | 81-86         | 75 %              | 7.15 | 580          |             |
| - Alexandria (SE)                     | Manholes of<br>Outfalls of<br>Lagoons 1,2,3 [p] | 08/10/77                  | 3 grabs            | M1-77-92      | N.L.              | 7.5  | 700          |             |
|                                       | A Cell [p]                                      | 06/25/81                  | grab               | 81-87         | N.L.              | 7.4  | 580          |             |
|                                       | C Cell [p]                                      | 06/25/81                  | grab               | 81-88         | N.L.              | 7.6  | 700          |             |
|                                       | D Cell [e]                                      | 06/25/81                  | grab               | 81-89         | N.L.              | 7.65 | 590          |             |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION      | EFFLUENT              | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS  |
|-----------------------------------|-----------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|---|
| ALGOMA STEEL<br>- S.S. Marie (NE) | Terminal<br>Basin [e] | 09/07/76                  | grab               | M1-76-28      | <10 %             | 8.5  | 340          | - unaerated-10 % killed all fish in 0.5 hr.       |
|                                   |                       | 09/07/76                  | grab               | M1-76-28      | <10 %             | 8.5  | 340          | - 10 % killed all fish in 0.5 hr.                 |
|                                   |                       | 09/07/76                  | grab               | M1-76-28      | 2.0 %             | 8.5  | 340          | - unaerated                                       |
|                                   |                       | 09/07/76                  | grab               | M1-76-28      | 2.0 %             | 8.5  | 340          |   |
|                                   |                       | 06/06/77                  | grab               | M1-77-14      | <5 %              | 9.2  | 265          | - unaerated 5 % killed all fish in 0.5 hr.        |
|                                   |                       | 06/06/77                  | grab               | M1-77-14      | <100 %            | 9.2  | 265          | - 100 % killed all fish in 0.5 hr.                |
|                                   |                       | 06/06/77                  | grab               | M1-77-14      | 1.4 %             | 9.2  | 265          | - unaerated-LC50 range 1-2 %                      |
|                                   |                       | 07/24/78                  | 12hr comp.         | M2-78-169     | 2.45 %            | 7.85 | 290          | - LC50 range 2-3 %                                |
|                                   |                       | 07/25/78                  | 12hr comp.         | M2-78-177     | 0.88 %            | 7.03 | 260          |   |
|                                   |                       | 07/25/78                  | 12hr comp.         | M2-78-184     | 1.3 %             | 7.0  | 200          |   |
|                                   |                       | 07/26/78                  | 12hr comp.         | M2-78-185     | 1.4 %             | 7.6  | 240          | - LC50 range 1-2 %                                |
|                                   |                       | 07/26/78                  | 12hr comp.         | M2-78-187     | 1.3 %             | 7.7  | 230          |   |
|                                   |                       | 07/27/78                  | 12hr comp.         | M2-78-188     | 1.2 %             | 8.0  | 210          | - LC50 1-1.5 %                                    |
|                                   |                       | 07/27/78                  | 12hr comp.         | M2-78-197     | 1.3 %             | 8.2  | 240          |   |
|                                   |                       | 07/28/78                  | 14.5hr "           | M2-78-198     | 1.18 %            | 8.0  | 220          |   |
|                                   |                       | 07/28/78                  | grab               | M2-78-207     | 0.93 %            | 7.65 | 250          |   |
|                                   |                       | 07/27/78                  | grab               | M2-78-210     | 1.17 %            | 8.35 | 250          |   |
|                                   |                       | 07/10/79                  | 24hr comp.         | 79-74         | 2.1 %             | 9.2  | 315          |   |
|                                   |                       | 07/11/79                  | 24hr comp.         | 79-76         | 2.4 %             | 9.1  | 285          | - LC50 range 2-3 %                                |
|                                   |                       | 07/12/79                  | 24hr comp.         | 79-78         | 2.37              | 9.3  | 305          |   |
|                                   |                       | 07/13/79                  | 24hr comp.         | 79-80         | 3.9 %             | 8.6  | 205          | - LC50 range 2-5 %                                |
|                                   |                       | 07/10/79                  | 24hr comp.         | M2-79-9       | 2.2 %             | 9.3  | 271          |   |
|                                   |                       | 02/02/81                  | grab               | 81-11         | 39 %              | 8.2  | 170          |   |
|                                   |                       | 02/03/81                  | grab               | 81-19         | 45 %              | 8.05 | 200          |   |
|                                   |                       | 02/03/81                  | grab               | 81-19         | 45 %              | 8.05 | 200          | -unaerated  |
|                                   |                       | 02/04/81                  | grab               | 81-20         | 25 %              |      |              |   |
|                                   |                       | 02/03/81                  | grab               | 81-21         | 100 %             | 8.4  | 235          | -preaerated & clino treatd<br>-20 % dead in 100 % |



## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                     | EFFLUENT                          | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH    | CONDUCTIVITY | COMMENTS   |
|--|-----------------------------------|---------------------------|--------------------|---------------|-------------------|-------|--------------|--|
| ALGOMA STEEL<br>- S.S. Marie (NE)<br>(Continued) | Dorr Thickener [e]                | 02/03/81                  | grab               | 81-22         | 87 %              | 7.8   | 200          | -preaerated  |
|  |                                   | 02/03/81                  | grab               | 81-23         | 71 %              | 8.6   | 235          | -clino treated   |
|  |                                   | 09/13/76                  | grab               | M1-76-35      | <10 %             | 10.7  | 330          | - unaerated 10 % killed all fish in 0.5 hours.<br>pH adjusted to 8.0 |
|  |                                   | 09/13/76                  | grab               | M1-76-35      | <10 %             | 10.7  | 330          | - unaerated 10 % killed all fish in 0.5 hours                        |
|  |                                   | 09/13/76                  | grab               | M1-76-35      | 3.5 %             | 10.7  | 330          | " " "  |
|  |                                   | 09/13/76                  | grab               | M1-76-34      | 2.4 %             | 10.7  | 330          | - unaerated 10 % killed all fish in 0.5 hours<br>pH adjusted         |
|  |                                   | 06/06/77                  | grab               | M1-77-13      | N.L.*             | 9.6   | 170          | - " pH adjusted to 7.0 * at 50 %                                     |
|  |                                   | 06/06/77                  | grab               | M1-77-13      | <100 %            | 9.6   | 170          | - 100 % killed all fish in 4 hours                                   |
|  |                                   | 06/06/77                  | grab               | M1-77-13      | N.L.*             | 9.6   | 170          | - unaerated * at 10 %  |
|  |                                   | 07/25/78                  | 24hr comp.         | M2-78-178     | 1.75 %            | 8.0   | 380          |  |
|  |                                   | 07/26/78                  | 24hr comp.         | M2-78-182     | 2.7 %             | 8.5   | 260          |  |
|  |                                   | 07/27/78                  | 24hr comp.         | M2-78-196     | 4 %               | 9.0   | 250          | - LC50 3-5 %   |
|  |                                   | 07/28/78                  | grab               | M2-78-199     | 3.5 %             | 9.9   | 195          |  |
|  |                                   | 07/27/78                  | grab               | M2-78-208     | 7.0 %             | 10.75 | 239          | - LC50 range 5-10 %  |
|  | Bar & Strip<br>Mill (pre-lag) [p] | 07/10/79                  | 24hr comp.         | N.L.*         | 8.5               | 240   | - * at 20 %  |  |
|  |                                   | 07/11/79                  | 24hr comp.         | 79-75         | N.L.*             | 8.3   | 250          | - * 20 %   |
|  |                                   | 07/13/79                  | 24hr comp.         | 79-79         | N.L.              | 8.5   | 230          |  |
|  |                                   | 07/13/79                  | grab               | 79-81         | N.L.              | 8.7   | 220          |  |
|  |                                   | 07/13/79                  | grab               | 79-82         | N.L.              | 8.1   | 170          |  |
|  |                                   | 07/10/79                  | 24hr comp.         | M2-79-10      | N.L.              | 8.8   | 242          |  |
|  |                                   | 02/03/81                  | grab               | 81-14         | 4.3 %             | 7.05  | 235          |  |
|  |                                   | 07/24/78                  | 4hr grab           | M2-78-163     | N.L.              | 6.5   | 120          |  |
|  |                                   | 07/27/78                  | comp.<br>grab      | M2-78-190     | N.L.              | 7.3   | 95           |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                     | EFFLUENT                          | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                   |
|--|-----------------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|----------------------------|
| ALGOMA STEEL<br>- S.S. Marie (NE)<br>(Continued) | Bar & Strip<br>Mill (final) [e]   | 07/24/78                  | 4hr grab           | M2-78-162     | N.L.              | 7.0  | 150          |                            |
|  |                                   | 07/25/78                  | grab               | M2-78-171     | N.L.              | 7.5  | 180          |                            |
|  |                                   | 07/27/78                  | grab               | M2-78-189     | N.L.              | 7.0  | 115          |                            |
|  |                                   | 07/28/78                  | grab               | M2-78-206     | N.L.              | 7.35 | 135          |                            |
|  |                                   | 02/03/81                  | grab               | 81-10         | 37 %              | 9.4  | 130          |                            |
|  | 60" Blast<br>Furnace<br>Sewer [e] | 07/24/78                  | comp. of<br>grabs  | M2-78-164     | N.L.              | 6.7  | 110          |                            |
|  |                                   | 07/25/78                  | grab               | M2-78-172     | N.L.              | 7.7  | 160          |                            |
|  |                                   | 07/26/78                  | grab               | M2-78-180     | N.L.              | 6.0  | 140          |                            |
|  |                                   | 07/27/78                  | grab               | M2-78-191     | N.L.              | 7.5  | 95           |                            |
|  |                                   | 07/28/78                  | grab               | M2-78-205     | N.L.              | 7.6  | 130          |                            |
|  | 30" Blast<br>Furnace<br>Sewer [e] | 07/24/78                  | comp. of<br>grabs  | M2-78-165     | N.L.              | 6.65 | 150          |                            |
|  |                                   | 07/25/78                  | grab               | M2-78-173     | N.L.              | 7.6  | 200          |                            |
|  |                                   | 07/26/78                  | grab               | M2-78-181     | N.L.              | 5.4  | 200          |                            |
|  |                                   | 07/27/78                  | grab               | M2-78-192     | N.L.              | 7.2  | 145          |                            |
|  |                                   | 07/28/78                  | grab               | M2-78-204     | N.L.              | 6.85 | 235          |                            |
|  | B.O.F.                            | 07/24/78                  | grab               | M2-78-170     | N.L.              | 8.1  | 140          |                            |
|  | Cooling Water [e]                 | 07/28/78                  | grab               | M2-78-203     | N.L.              | 7.65 | 145          |                            |
|  | Coke Plant [p]                    | 02/03/81                  | grab               | 81-15         | 0.7 %             | 9.4  | 130          |                            |
|  | Coke Quencher<br>Water [p]        | 02/03/81                  | grab               | 81-16         | 100               | 9.1  | 92           | -100 % killed 70 % of fish |
|  | Intake [s]                        | 07/25/78                  | 24hr comp.         | M2-78-179     | N.L.              | 7.7  | 140          |                            |
|  |                                   | 07/26/78                  | 24hr comp.         | M2-78-183     | N.L.              | 7.2  | 180          |                            |
|  |                                   | 07/25/78                  | 24hr comp.         | M2-78-195     | N.L.              | 7.9  | 90           |                            |
|  |                                   | 07/28/78                  | 24hr comp.         | M2-78-200     | N.L.              | 7.7  | 130          |                            |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                     | EFFLUENT                          | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                  |
|--|-----------------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|---------------------------|
| ALGOMA STEEL<br>- S.S. Marie (NE)<br>(Continued) | Cold Mill<br>Basin [e]            | 07/24/78                  | comp. of<br>grabs  | M2-78-167     | N.L.              | 7.0  | 105          |                           |
|  |                                   | 07/25/78                  | grab               | M2-78-175     | N.L.              | 7.8  | 160          |                           |
|  |                                   | 07/27/78                  | grab               | M2-78-193     | N.L.              | 7.6  | 100          |                           |
|  |                                   | 07/28/78                  | grab               | M2-78-202     | N.L.              | 7.6  | 140          |                           |
|  | Cold Mill<br>Basin [e]            | 09/13/76                  | grab               | M1-76-34      | N.L.              | 6.9  | 140          | - unaerated               |
|  |                                   | 06/06/77                  | grab               | M1-77-15      | N.L.              | 6.9  | 160          | - unaerated               |
|  |                                   | 06/06/77                  | grab               | M1-77-15      | N.L.              | 6.9  | 165          |                           |
|  | Tube Division [e]                 | 07/24/78                  | comp. of<br>grabs  | M2-78-166     | N.L.              | 6.8  | 110          |                           |
|  |                                   | 07/25/78                  | grab               | M2-78-174     | N.L.              | 7.7  | 160          |                           |
|  |                                   | 07/26/78                  | grab               | M2-78-186     | >100 %            | 7.4  | 140          | - 40 % mortality in 100 % |
|  | Cold Mill<br>Acid Sewer [e]       | 07/24/78                  | comp. of<br>grabs  | M2-78-168     | 35 %              | 3.5  | 680          | - LC50 range 30-40 %      |
|  |                                   | 07/25/78                  | grab               | M2-78-176     | 5.2 %             | 2.2  | 400          |                           |
|  |                                   | 07/27/78                  | grab               | M2-78-194     | 39 %              | 4.4  | 360          | - LC50 range 30-50 %      |
|  |                                   | 07/27/78                  | grab               | M2-78-209     | 30.2 %            | 3.9  | 850          | - LC50 range 20-50 %      |
|  |                                   | 07/28/78                  | grab               | M2-78-201     | 14.3 %            | 3.4  | 940          | - LC50 range 10-20 %      |
|  | Weak Ammonia<br>Stillls (In) [p]  | 02/03/81                  | grab               | 81-17         | 0.05 %            | 9.8  | 18500        |                           |
|  | Weak Ammonia<br>Stillls (Out) [p] | 02/03/81                  | grab               | 81-18         | 1.7 %             | 5.7  | 1300         |                           |
| ALLIED CHEMICALS<br>- Amherstberg (SW)           | Main Plant<br>Sewer [e]           | 03/28/77                  | grab               | 77-33         | N.L.              | 8.4  | 1300         |                           |
|  | North Drainage [e]                | 03/28/77                  | grab               | 77-34         | 17 %              | 11.4 | 41000        | - LC50 range 10-30 %      |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                 | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|--|---|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| AMERICAN CAN OF<br>CANADA<br>- Marathon (NW) | Excess Bleach<br>Plant Filtrate [p]                               | 09/28/78                  | 4hr comp.          | 78-66         | 0.55 %            | 9.7  | 1750         | - pH adjusted to 6.3 -<br>LC50 range 0.3-1 %     |
|  | Machine Room<br>Effluent[p]                                       | 09/28/78                  | 4hr comp.          | 78-167        | N.L.              | 9.3  | 195          | - pH adjusted to 6.3                             |
|  | Effluent to<br>Clarifier [p]                                      | 09/28/78                  | 4hr comp.          | 78-68         | 22.6 %            | 10.4 | 495          | - pH adjusted to 6.0                             |
|  | Caustic Filt-<br>trate [p]  | 09/28/78                  | 4hr comp.          | 78-65         | 49.9 %            | 9.1  | 2200         | - pH adjusted to 6.3                             |
|  | #2 Evapora-<br>tor Condensate [p]                                 | 09/28/78                  | 4hr comp.          | 78-61         | N.L.*             | 9.5  | 125          | - pH adjusted to 6.3* at 10 %                    |
|  |   | 09/28/78                  | 4hr comp.          | 78-61         | 16.6 %            | 9.5  | 125          | - pH adjusted to 6.6                             |
|  | Recovery<br>Furnace Sewer<br>including bark<br>press effluent [p] | 09/28/78                  | 4hr comp.          | 78-75         | 53.3 %            | 10   | 560          | - pH adjusted to 6.3                             |
|  | Barkpress [p]   | 09/28/78                  | 4hr comp.          | 78-73         | 49 %              | 6.8  | 125          | - pH adjusted to 6.2 -<br>LC50 range 30-80 %     |
|  | Recovery<br>Furnace<br>Sewer [p]                                  | 09/28/78                  | 4hr comp.          | 78-74         | 68 %              | 11.1 | 730          | - pH adjusted to 6.3 -<br>33 % mortality in 68 % |
|  | Woodroom<br>Effluent [p]  | 09/28/78                  | 4hr comp.          | 78-72         | N.L.*             | 6.9  | 100          | - pH adjusted to 6.2<br>* at 80 %                |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                                | EFFLUENT                         | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH    | CONDUCTIV-<br>TIVITY | COMMENTS   |
|---|----------------------------------|---------------------------|--------------------|---------------|-------------------|-------|----------------------|--|
| AMERICAN CAN OF<br>CANADA<br>- Marathon (NW)<br>(Continued) | Combined<br>Mill<br>Effluent [e] | 05/09/78                  | 8hr comp.          | 78-26         | >100 %            | 8.1   | 1050                 | - 10 % mortality in 100 %                                |
|   |                                  | 09/28/78                  | 4hr comp.          | 78-71         | 55.6 %            | 5.9   | 1400                 | - pH adjusted to 6.1                                     |
|   |                                  | 10/14/79                  | comp. of<br>grabs  | 79-161        | 59 %              | 6.2   | 1300                 |  |
|   |                                  | 07/15/80                  | 16hr comp.         | M3-80-11      | 24 %              | 3.7   | 1300                 | - acid spill in plant                                    |
|   |                                  | 08/12/80                  | 24hr comp.         | M3-80-45      | 82 %              | 7.3   | 1200                 |  |
|   |                                  | 03/25/80                  | 4hr grab<br>comp.  | M3-80-64      | 63 %              | 6.2   |                      |  |
|   |                                  | 06/16/81                  | 12hr comp.         | M3-81-23      | <30 %             | 8.5   | 1500                 | -30 % killed all fish in 96 h                            |
|   |                                  | 08/18/81                  | 4hr comp.          | M3-81-106     | 45 %              | 6.9   |                      |  |
|   |                                  | 08/24/81                  | 2.5hr comp.        | M3-81-114     | 14 %              | 3.2   | 1700                 |  |
|   | Main Mill<br>Effluent [p]        | 05/09/78                  | 8hr comp.          | 78-28         | 51 %              | 10.54 | 1020                 | - LC50 range 45-65 %                                     |
|   |                                  | 05/09/78                  | 8hr comp.          | 78-28         | <100 %            | 10.54 | 1020                 | - pH adjusted to 7.6 100 %<br>killed all fish in 48 hrs. |
|   |                                  | 09/28/78                  | 4hr comp.          | 78-70         | 63 %              | 9.9   | 1370                 | - pH adjusted to 6.3 -<br>LC50 range 50-80 %             |
|   |                                  | 07/15/80                  | 16hr comp.         | M3-80-12      | 60 %              | 9.3   | 1300                 |  |
|   | Effluent from<br>Clarifier [p]   | 09/28/78                  | 4hr comp.          | 78-69         | 63 %              | 10.4  | 500                  | - pH adjusted to 6.3<br>LC50 range 50 - 80 %             |
|   | Acid Bleachery [p]               | 05/09/78                  | 8hr comp.          | 78-27         | 25.5 %            | 2.55  | 1800                 |  |
|   |                                  | 05/09/78                  | 8hr comp.          | 78-27         | 35 %              | 2.55  | 1800                 | - pH adjusted to 7.4                                     |
|   | Caustic<br>Bleacher [p]          | 05/09/78                  | 8hr comp.          | 78-29         | 24.5 %            | 11.7  | 1900                 | - LC50 range 20-30 %                                     |
|   |                                  | 05/09/78                  | 8hr comp.          | 78-29         | 41 %              | 11.7  | 1900                 | - pH adjusted to 7.8 %                                   |
|   | Main Mill<br>Sump [p]            | 05/09/78                  | 8hr comp.          | 78-30         | 41.6 %            | 9.82  | 470                  |  |
|   |                                  | 05/09/78                  | 8hr comp.          | 78-30         | <100 %            | 9.82  | 470                  | - pH adjusted to 7.7 100 %<br>killed all fish in 24 hrs. |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                                | EFFLUENT                                    | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD      | SAMPLE<br>NO.     | 96-HOUR<br>-LC 50 | pH          | CONDUCTIVITY | COMMENTS   |
|---|---|---------------------------|-------------------------|-------------------|-------------------|-------------|--------------|--|
| AMERICAN CAN OF<br>CANADA<br>- Marathon (NW)<br>(Continued) | Foul Water<br>from<br>Digester Blow [p]     | 09/28/78                  | 4hr comp.               | 78-59             | 3.2               | 9.7         | 270          | - LC50 range 2-5 %<br>pH adjusted to 6.3                       |
|   | #1 Evaporator<br>Condensate [p]             | 09/28/78                  | 4hr comp.               | 78-60             | 3.2 %             | 10.3        | 790          | - LC50 range 2-5 %<br>pH adjusted to 6.3                       |
|   | Condensate<br>from Surface<br>Condensor [p] | 09/28/78<br>07/15/80      | 4hr comp.<br>16hr comp. | 78-62<br>M3-80-14 | 1.8 %<br>7 %      | 10.5<br>8.4 | 1380<br>150  | - pH adjusted to 6.3   |
|   | Unbleached<br>White Water [p]               | 09/28/78                  | 4hr comp.               | 78-63             | 8 %               | 11.6        | 1110         | - pH adjusted to 6.3   |
|   | Acid Filtrate [p]                           | 09/28/78<br>07/15/80      | 4hr comp.<br>16hr comp. | 78-64<br>M3-80-13 | 10 %<br>3 %       | 1.9<br>1.8  | 3950<br>3850 | - pH adjusted to 6.2   |
| AMEROCK LTD.<br>- Meaford (SW)                              | Final Discharge<br>[e]                      | 05/26/81                  | grab                    | 81-50             | 71 %              | 10.2        | 475          | -no CN process input   |
|   |   | 05/26/81                  | grab                    | 81-52             | 66 %              | 9.9         | 440          | -with CN process input   |
|   |   | 06/10/81                  | grab                    | 81-72             | 58 %              | 9.7         | 840          | -no CN process input   |
|   |   | 06/10/81                  | grab                    | 81-73             | 33 %              | 10.25       | 2125         | -with CN process input   |
|   |   | 06/10/81                  | 4hr comp.               | 81-77             | 55 %              | 9.65        | 1140         |  |
|   |   | 06/10/81                  | 4hr comp.               | 81-78             | 100 %             | 9.45        | 680          |  |
|   |   | 06/10/81                  | 8hr. comp.              | 81-79             | 55 %              | 9.65        | 900          |  |
|   | Meaford Storm<br>Sewer [e]                  | 05/26/81                  | grab                    | 81-59             | 59 %              | 9.8         | 600          | -no CN process input   |
|   |   | 05/26/81                  | grab                    | 81-60             | 30 %              | 9.9         | 1100         | -clino treated   |
|   |   | 05/26/81                  | grab                    | 81-61             | 33 %              | 9.9         | 600          | -with CN process input   |
|   |   | 05/26/81                  | grab                    | 81-62             | >100 %            | 9.6         | 1750         | -with CN process input<br>-30% dead in 100% -<br>clino treated |
|   |   | 06/10/81                  | grab                    | 81-74             | N.L.              | 9.6         | 870          | -no CN process input   |
|   |   | 06/10/81                  | grab                    | 81-75             | 33 %              | 10.15       | 1480         | -with CN process input   |
|   |   |                           |                         |                   |                   |             |              |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                  | EFFLUENT                                      | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO.    | 96-HOUR<br>-LC 50 | pH          | CONDUCTIV-<br>TIVITY | COMMENTS                                |
|---|---|---------------------------|--------------------|------------------|-------------------|-------------|----------------------|---|
| AMEROCK LTD.<br>- Meaford (SW)<br>(Continued) | Acid/Alkaline<br>Stream [p]                   | 05/26/81                  | grab               | 81-55            | 1.4 %             | 7.3         | 1040                 |   |
|   | Burnishing/Final<br>Neutralized<br>Stream [p] | 05/26/81                  | grab               | 81-56            | 0.06 %            | 11.3        | 5400                 |   |
|   | Process Water [p]                             | 05/26/81<br>06/10/81      | grab<br>grab       | 81-58<br>81-80   | >100 %<br>N.L.    | 8.4<br>8.35 | 165<br>160           | -10 % dead in 100 %                     |
| ASLAND OIL<br>- Mississauga (C)               | Holding<br>Lagoon [m]                         | 06/01/76                  | grab               | 76-84            | 0.01 %            |             |                      | - unaerated                             |
| ATLAS STEEL CO. LTD.<br>- Welland (WC)        | 52" Sewer [d]                                 | 09/10/74                  | grab               |                  | N.L.              |             |                      | - unaerated P.Promelas test<br>organism |
|   | 42" Sewer [e]                                 | 09/30/81<br>09/30/81      | grab<br>24hr comp. | 81-148<br>81-147 | N.L.<br>N.L.      | 6.2<br>6.7  | 335<br>325           | -at Welland R                           |
|   | 36" Sewer [d]                                 | 09/10/74                  | grab               |                  | N.L.              |             |                      | - unaerated P.Promelas test<br>organism |
|   | Patterson Ave.<br>Sewer [d]                   | 09/10/74                  | grab               |                  | N.L.              |             |                      | - unaerated P.Promelas test<br>organism |
|   | Intake [s]                                    | 09/10/74<br>09/30/81      | grab<br>grab       |                  | N.L.<br>N.L.      |             |                      | - unaerated P.Promelas test<br>organism |
|   |   |                           |                    | 81-146           | N.L.              | 8.3         | 245                  |   |
| AULTS<br>- Winchester (SE)                    | North Lagoon<br>Outfall [e]                   | 09/15/77                  | grab               | M2-77-117        | 27.5 %            | 8.4         | 2150                 |   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION              | EFFLUENT                    | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|---|-----------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| AULTS<br>- Winchester (SE)<br>(Continued) | Final Lagoon<br>Outfall [e] | 07/06/76                  | 8 grabs            | M2-76-20      | 74 %              | 8.25 | 2750         | - unaerated<br>LC50 range 56-100 %                     |
|   |                             | 07/07/76                  | 8 grabs            | M2-76-21      | 74 %              | 8.25 | 2800         | - unaerated<br>LC50 range 56-100 %                     |
|   |                             | 07/08/76                  | 8 grabs            | M2-76-22      | 74 %              | 8.25 | 2400         | - unaerated<br>LC50 range 56-100 %                     |
|   |                             | 09/28/76                  | 8 grabs            | 76-164        | <50 %             | 8.35 | 2500         | - unaerated 50 % killed<br>90 % of all fish in 72 hrs. |
|   |                             | 09/28/76                  | 8 grabs            | 76-164        | <100 %            | 8.35 | 2500         | - 100 % killed<br>all fish in 2 hours                  |
|   |                             | 09/29/76                  | 8 grabs            | 76-165        | <50 %             | 8.4  | 2700         | - unaerated 50 % killed<br>all fish in 48 hours        |
|   |                             | 09/29/76                  | 8 grabs            | 76-165        | <100 %            | 8.4  | 2700         | - 100 % killed all fish<br>in 15 hours                 |
|   |                             | 01/12/77                  | 3 x 8hr<br>comp.   | 77-2          | 7.5 %             | 7.7  | 2600         | - LC50 range 5-10 %                                    |
|   |                             | 01/13/77                  | " "                | 77-3          | 7.5 %             | 7.5  | 2550         | - LC50 range 5-10 %                                    |
|   |                             | 01/14/77                  | " "                | 77-4          | 14 %              | 7.6  | 2600         | - LC50 range 10-20 %                                   |
|   | South Lagoon<br>Outfall [e] | 10/17/78                  | grab               | M2-78-282     | >100 %            | 8.0  | 1800         | - unaerated 5 % mortality<br>in 100 %                  |
|   |                             | 10/17/78                  | grab               | M2-78-282     | N.L.              | 8.0  | 1800         |  |
| BAKELITE THERMOSETS<br>- Belleville (SE)  | West Ditch [e]              | 07/05/76                  | grab               | M2-76-19      | N.L.              |      |              |  |
|   |                             | 07/06/77                  | grab               | M2-77-49      | N.L.              | 7.2  | 220          |  |
|   | East Ditch [e]              | 05/03/76                  | grab               | 76-58         | N.L.              | 7.9  | 180          |  |
|   |                             | 07/06/77                  | grab               | M2-77-50      | N.L.              | 9.4  | 205          |  |



## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                    | EFFLUENT   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCT-<br>TIVITY | COMMENTS                                |
|---|--|---------------------------|--------------------|---------------|-------------------|------|--------------------|---|
| BASF<br>- Wyandotte, Mich.<br>(SW)              | South Effluent<br>-Fighting Is. [e]                  | 03/28/77                  | grab               | 77-31         | 7 %               | 12   | 46500              | - LC50 range 5-10 %                     |
|   |  | 04/01/80                  | grab               | 80-46         | 40 %              | 11.9 | 42000              | - pH adjusted to 7.9                    |
|   |  | 04/01/80                  | grab               | 80-45         | 17 %              | 11.9 | 42000              |   |
|   | North Effluent<br>-Fighting Is. [e]                  | 03/28/77                  | grab               | 77-30         | 6.1 %             | 11.8 | 110000             |   |
|   |  |                           |                    |               |                   |      |                    |   |
| BEAVER WOOD FIBRE<br>CO. LTD.<br>- Thorold (WC) | Final Effluent<br>(at Clarifier) [e]                 | 05/17/76                  | grab               | 76-67         | 60 %              | 7.7  | 440                | - unaerated                             |
|   |  | 05/17/76                  | grab               | 76-67         | 60 %              | 7.7  | 440                |   |
|   |  | 04/23/80                  | grab               | 80-59         | 81 %              | 6.2  | 420                |   |
|   |  | 10/07/80                  | grab               | 80-195        | >100 %            | 6.8  | 510                | - 40 % mortality in 100 %               |
|   | Beaver Dam's<br>Ck (downstream) [1]                  | 04/23/80                  | grab               | 80-60         | 70 %              | 6.5  | 415                |   |
|   | Beaver Dam's<br>Ck (upstream) [1]                    | 04/23/80                  | grab               | 80-53         | >100 %            | 7.3  | 620                | - 10 % mortality in 100 %               |
|   |  |                           |                    |               |                   |      |                    |   |
|   |  |                           |                    |               |                   |      |                    |   |
| B.F. GOODRICH<br>- Niagara Falls (WC)           | Final Effluent<br>(from aerated<br>pond) [e]         | 03/15/76                  | grab               | 76-25         | <100 %            | 9.0  | 495                | - 100 % killed all fish in<br>49 hours  |
|   |  | 09/16/81                  | 24hr comp.         | 81-130        | Nil               | 6.75 | 880                |   |
|   | Settling Pond<br>on Co. Property<br>(South side) [p] | 02/23/76                  | grab               | 6-6           | N.L.              | 8.5  | 460                | - unaerated                             |
|   | Intake [s]   | 09/16/81                  | grab               | 81-131        | Nil               | 250  |                    |   |
|   |  | 09/16/81                  | grab               | 81-16-81      | 100 %             | 7.19 | 270                | -after clarifier and sand<br>filtration |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                           | EFFLUENT                           | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS                              |
|--|------------------------------------|---------------------------|--------------------|---------------|-------------------|-----|--------------|---------------------------------------|
| BOISE-CASCADE<br>CANADA LIMITED<br>- Fort Frances (NW) | Final Effluent [e]                 | 07/26/77                  | grab               | M1-77-52      | <10 %             | 6.4 | 1200         | - 10 % killed all fish in<br>48 hours |
|  |                                    | 08/13/79                  | grab               | 79-116        | 32 %              | 7.0 | 1750         |                                       |
|  |                                    | 07/08/80                  | grab               | M3-80-5       | 4 %               | 6.2 | 1950         |                                       |
|  |                                    | 07/22/80                  | grab               | M3-80-22      | 9 %               | 6.8 | 1650         |                                       |
|  |                                    | 08/06/80                  | grab               | M3-80-38      | 6 %               | 6.3 | 2000         |                                       |
|  |                                    | 07/06/81                  | grab               | M3-81-51      | 14 %              | 6.5 |              |                                       |
|  |                                    | 08/04/81                  | comp.-grab         | M3-81-86      | 21 %              | 6.7 |              |                                       |
|  |                                    | 06/22/81                  | comp.-grab         | M3-81-31      | 6 %               | 6.3 |              |                                       |
|  | Intake [s]                         | 08/13/79                  | grab               | 79-115        | N.L.              | 7.5 | 47           |                                       |
|  | Clarifier [p]                      | 07/08/80                  | grab               | M3-80-8       | 11 %              | 5.7 | 240          |                                       |
|  |                                    | 07/22/80                  | grab               | M3-80-25      | 14 %              | 6.3 | 430          |                                       |
|  |                                    | 08/06/80                  | grab               | M3-80-41      | 13 %              | 5.5 | 250          |                                       |
|  |                                    | 06/22/81                  | grab               | M3-81-20      | 8 %               | 6.0 |              |                                       |
|  |                                    | 07/06/81                  | grab               | M3-81-52      | 20 %              | 6.2 |              |                                       |
|  |                                    | 08/04/81                  | grab               | M3-81-87      | 14 %              | 5.8 |              |                                       |
|  | Aeration<br>Lagoon<br>Influent [p] | 07/08/80                  | grab               | M3-80-7       | 7 %               |     | 2500         |                                       |
|  |                                    | 07/22/80                  | grab               | M3-80-24      | 5 %               | 3.5 |              |                                       |
|  |                                    | 08/06/80                  | grab               | M3-80-39      | 4 %               | 3.0 | 2400         |                                       |
|  |                                    | 07/06/81                  | grab               | M3-81-47      | 14 %              | 4.9 |              |                                       |
|  |                                    | 06/22/81                  | grab               | M3-81-27      | 15 %              | 6.5 |              |                                       |
|  | Aeration<br>Lagoon<br>Effluent [p] | 07/08/80                  | grab               | M3-80-6       | 3.5 %             | 6.3 | 2700         |                                       |
|  |                                    | 07/22/80                  | grab               | M3-80-23      | 8 %               | 6.7 | 2550         |                                       |
|  |                                    | 08/22/80                  | grab               | M3-80-40      | 5 %               | 6.5 | 3000         |                                       |
|  |                                    | 06/22/81                  | grab               | M3-81-28      | 6 %               | 6.6 |              |                                       |
|  |                                    | 07/06/81                  | grab               | M3-81-48      | 16 %              | 6.6 |              |                                       |
|  |                                    | 08/04/81                  | grab               | M3-81-88      | >45 %             | 6.8 |              | -45 % dead in 45 %                    |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION  | EFFLUENT                     | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS             |
|---|------------------------------|---------------------------|--------------------|---------------|-------------------|-----|--------------|----------------------|
| BOISE-CASCADE<br>CANADA LIMITED<br>- Fort Frances (NW)<br>(Continued) | Kraft Mill [p]               |                           |                    |               |                   |     |              |                      |
|   | Bleaching [p]                | 06/22/81                  | grab               | M3-81-24      | 7 %               | 4.7 |              |                      |
|   |                              | 07/06/81                  | grab               | M3-81-44      | 51 %              | 6.3 |              |                      |
|   | Woodroom                     |                           |                    |               |                   |     |              |                      |
|   | Clarifier [p]                | 06/22/81                  | grab               | M3-81-25      | 7 %               | 3.9 |              |                      |
|   |                              | 07/06/81                  | grab               | M3-81-45      | 4 %               | 4.4 |              |                      |
|   | Influent to                  |                           |                    |               |                   |     |              |                      |
|   | Lagoon system [p]            | 06/22/81                  | grab               | M3-81-26      | 19 %              | 6.4 |              |                      |
|   |                              | 07/06/81                  | grab               | M3-81-46      | 11 %              | 6.2 |              |                      |
|   | Vacuum Pump                  |                           |                    |               |                   |     |              |                      |
| - Kenora (NW)   | seals water [p]              | 06/22/81                  | grab               | M3-81-29      | >100 %            | 7.1 |              | - 10% dead in 100%   |
|   |                              | 07/06/81                  | grab               | M3-81-50      | N.L.              | 7.2 |              |                      |
|   | White Water<br>Clarifier [p] | 11/20/79                  | grab               | 79-177        | 24 %              | 6.0 | 425          | - LC50 range 18-33 % |
|   |                              | 07/15/80                  | grab               | M3-80-16      | 42 %              | 6.0 | 390          |                      |
|   |                              | 07/28/80                  | grab               | M3-80-33      | 39 %              | 6.4 | 240          |                      |
|   |                              | 08/11/80                  | grab               | M3-80-44      | 29 %              | 6.1 | 240          |                      |
|   |                              | 06/15/81                  | 5hr comp.          | M3-81-19      | 18 %              | 5.2 |              |                      |
|   |                              | 07/06/81                  | 5hr comp.          | M3-81-59      | 14 %              | 5.6 |              |                      |
|   |                              | 08/17/81                  | 5hr comp.          | M3-81-109     | 8 %               | 4.6 |              |                      |
|   |                              |                           |                    |               |                   |     |              |                      |
|   | Mg Sulfite [p]               | 19/11/79                  | 24hr comp.         | 79-176        | 3 %               | 4.3 | 1100         | - LC50 range 1.8-5 % |
|   |                              | 06/15/81                  | 5hr comp.          | M3-81-20      | 3.6 %             | 4.8 |              |                      |
|   |                              | 07/13/81                  | 5hr comp.          | M3-81-60      | 4.0 %             | 4.2 |              |                      |
|   |                              | 08/17/81                  | 5hr comp.          | M3-81-108     | 7 %               | 4.6 |              |                      |
|   | Raw Water [s]                | 11/20/79                  | grab               | 79-175        | N.L.              | 6.9 | 85           |                      |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                                    | EFFLUENT                       | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUC-<br>TIVITY | COMMENTS   |
|---|--------------------------------|---------------------------|--------------------|---------------|-------------------|------|-------------------|--|
| BOISE-CASCADE<br>CANADA LIMITED<br>- Kenora (NW)<br>(Continued) | Final<br>Effluent [e]          | 07/25/77                  | grab               | M1-77-47      | 50 %              | 6.1  | 310               |  |
|   |                                | 11/19/79                  | 24hr comp.         | 79-178        | 16 %              | 6.2  | 700               |  |
|   |                                | 07/15/80                  | grab               | M3-80-15      | 24 %              | 4.1  | 1100              |  |
|   |                                | 07/28/80                  | grab               | M3-80-32      | 37 %              | 6.3  | 220               |  |
|   |                                | 08/11/80                  | grab               | M3-80-43      | 36 %              | 6.0  | 210               |  |
|   |                                | 06/15/81                  | 5hr comp.          | M3-81-21      | 12 %              | 4.2  |                   |  |
|   |                                | 07/13/81                  | 5hr comp.          | M3-81-58      | 13 %              | 3.9  |                   |  |
|   |                                | 08/17/81                  | 5hr comp.          | M3-81-110     | 11 %              | 3.9  |                   |  |
| BORG WARNER<br>- Coburg (C)                                     | Clarifier [e]                  | 02/16/76                  | grab               | 76-1          | 42 %              | 7.6  | 1500              | - LC50 range 32-56 %<br>unaerated                      |
| BRITISH CELLOPHANE<br>- Cornwall (SE)                           | Sulfide Sewer<br>(#1 Sewer)[e] | 09/10/76                  | grab               | M2-76-37      | 26%               | 8.75 | 2000              | - unaerated  |
|   |                                | 06/27/77                  | grab               | M2-77-36      | 20%               | 9.6  | 1900              |  |
|   |                                | 06/27/77                  | grab               | M2-77-36      | <15%              | 9.6  | 1900              | - pH adjusted to 7.0 - 15%<br>killed all fish in 1 hr. |
|   |                                | 08/16/77                  | grab               | M2-77-96      | 45%               | 8.9  | 1950              | - LC50 range 40-50%                                    |
|   |                                | 08/16/77                  | grab               | M2-77-96      | 23%               | 8.9  | 1950              | - pH adjusted to 6.9                                   |
|   |                                | 11/29/77                  | grab               | M2-77-123     | 45%               | 8.2  | 1250              |  |
|   |                                | 04/24/79                  | grab               | 79-16         | 44.3%             | 9.2  | 2100              |  |
|   | Acid Sewer<br>(#3 Sewer)[e]    | 08/06/76                  | grab               | M2-76-48      | 4.2%              | 1.7  | 9300              | - unaerated  |
|   |                                | 06/27/77                  | grab               | M2-77-38      | 6.0%              | 1.3  | 12000             | - LC50 range 5-7%                                      |
|   |                                | 06/27/77                  | grab               | M2-77-38      | >100%             | 1.3  | 12000             | - 20% mortality in 100% pH<br>adjusted to 7.0          |
|   |                                | 04/24/79                  | grab               | 79-15         | 1.3%              | 1.2  | 16000             | - LC50 range 0.5-2%                                    |
|   |                                | 04/24/79                  | gran               | 79-15         | 8.9%              | 1.2  | 16000             | - pH adjusted to 7.8                                   |
|   |                                | 09/23/80                  | 24hr comp.         | 80-159        | 1.7%              | 1.8  |                   |  |
|   |                                | 09/23/80                  | 24hr comp.         | 80-170        | 100%              | 7.9  | 10,000            | - pH adjusted  |
|   |                                | 10/01/80                  | 15hr comp.         | 80-176        | 3.0%              | 1.7  | 15,000            | -  |
|   |                                | 10/01/80                  | 15hr comp.         | 80-187        | 59%               | 7.6  | 10,000            | - pH adjusted  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                         | EFFLUENT                               | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIV-<br>TIVITY | COMMENTS                                 |
|--|--|---------------------------|--------------------|---------------|-------------------|------|----------------------|--|
| BRITISH CELLOPHANE<br>- Cornwall (SE)<br>(Continued) | #2 Sewer[e]                            | 06/27/77                  | grab               | M2-77-37      | N.L.              | 7.9  | 1300                 |  |
|  |  | 08/16/77                  | grab               | M2-77-97      | N.L.              | 7.9  | 1500                 |  |
|  | TCF well [p]                           | 09/23/80                  | grab               | 80-168        | N.L.              | 7.4  | 1900                 |  |
|  |  | 10/01/80                  | grab               | 80-185        | N.L.              | 7.6  | 1900                 |  |
| BRITISH PETROLEUM<br>(BP)<br>- Bronte (C)            | Final Holding<br>Pond [e]              | 06/11/79                  | grab               | 79-47         | >100 %            | 8.3  |                      | - 15 % mortality in 100 %                |
|  |  | 06/11/79                  | grab               | 79-47         | >100 %*           | 8.3  |                      | - * 24hr test-10 % mortality<br>in 100 % |
|  |  | 04/13/81                  | grab               | 81-36         | >100 %            | 7.2  | 3600                 | -5 % dead in 100 %                       |
| BULORE MINE<br>- Red Lake (NW)                       | Madison<br>Tailings<br>Pond Decant [e] | 07/16/79                  | grab               | 79-83         | N.L.              | 7.4  | 480                  | - unaerated                              |
| CAMPBELL RED LAKE<br>MINE<br>- Red Lake (NW)         | Tailings Pond<br>Decant [e]            | 07/16/79                  | grab               | 79-89         | 0.21 %            | 8.9  | 1700                 | - LC 50 range 0.1-0.5 %<br>unaerated     |
|  |  | 08/18/80                  | grab               | M3-80-55      | 2 %               | 8.0  |                      |  |
|  |  | 06/29/81                  | grab               | M3-81-41      | 1.4 %             | 8.3  | 2575                 |  |
|  |  | 06/29/81                  | grab               | M3-81-41      | 1.4 %             | 8.3  | 2575                 | -unaerated                               |
|  |  | 08/10/81                  | grab               | M3-81-98      | 4.5 %             | 8.3  | 2150                 |  |
|  |  | 10/27/81                  | grab               | 81-163        | 1.3 %             | 8.76 | 1240                 |  |
|  | Tailings<br>Slurry [p]                 | 06/08/81                  | grab               | M3-81-14      | 0.14 %            | 9.3  |                      | -unaerated                               |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION         | EFFLUENT   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                             |
|--------------------------------------|--|---------------------------|--------------------|---------------|-------------------|------|--------------|--------------------------------------|
| CANADA STARCH<br>- Cardinal (SE)     | Combined #2<br>Plant &<br>Lagoon (Discharge<br>Point to St.<br>Lawrence R.) [e]  | 09/03/76                  | grab               | M2-76-55      | 70 %              | 6.9  | 255          | - unaerated                          |
|                                      |  | 07/13/77                  | grab               | M2-77-60      | N.L.              | 7.0  | 480          |                                      |
|                                      | Total Solvent<br>Sewer [p]   | 06/21/76                  | grab               | M2-76-11      | 20 %              | 7.55 | 260          | - unaerated                          |
|                                      |  | 07/07/76                  | grab               | M2-76-17      | 80 %              | 7.8  | 285          | - unaerated                          |
|                                      |  | 09/03/76                  | grab               | M2-76-51      | N.L.              | 7.45 | 265          | - unaerated                          |
|                                      |  | 07/13/77                  | grab               | M2-77-58      | N.L.              | 7.6  | 275          |                                      |
|                                      | 24" Sewer [e]  | 06/21/76                  | grab               | M2-76-12      | N.L.              | 7.4  | 360          | - unaerated                          |
|                                      |  | 09/03/76                  | grab               | M2-76-55      | N.L.              | 7.8  | 370          | - unaerated                          |
|                                      |  | 07/13/77                  | grab               | M2-77-59      | N.L.              | 7.4  | 325          |                                      |
|                                      | #2 Plant<br>Sewer [p]  | 06/21/76                  | grab               | M1-76-13      | 45 %              | 7.7  | 260          | - LC50 range 32-56 % -<br>unaerated  |
|                                      |  | 09/03/76                  | grab               | M2-76-54      | 74 %              | 7.5  | 265          | - LC50 range 56-100 % -<br>unaerated |
|                                      |  | 07/13/77                  | grab               | M2-77-62      | N.L.              | 7.5  | 270          |                                      |
|                                      | Treatment<br>Lagoon [p]  | 09/03/76                  | grab               | M2-76-53      | 32 %              | 6.7  | 470          | - unaerated                          |
|                                      |  | 07/19/77                  | grab               | M2-77-61      | N.L.              | 7.0  | 600          |                                      |
|                                      | Immed. prior<br>to lagoon effl.<br>mixing with #2<br>plant sewer<br>effluent [p] | 07/05/76                  | grab               | M2-76-18      | 14 %              | 7.0  | 640          | - unaerated<br>LC50 range 10-18 %    |
| CANADAKA MINES<br>- Elliot Lake (NE) | Discharge of<br>Tailings Ponds [d]   | 07/20/77                  | grab               | M1-77-42      | N.L.              | 7.6  |              | - unaerated                          |
|                                      |  | 07/20/77                  | grab               | M1-77-42      | N.L.              | 7.6  | 656          |                                      |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION             | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIV-<br>TIVITY | COMMENTS                                 |
|--|---|---------------------------|--------------------|---------------|-------------------|------|----------------------|--|
| CANADIAN INDUSTRIES LTD.<br>C.I.L.       |   |                           |                    |               |                   |      |                      |  |
| - Cornwall (SE)                          | LEL-2 Sewer [e]                                 | 12/05/79                  | grab               | 79-191        | N.L.              | 10.4 | 2000                 |  |
|  |   | 12/05/79                  | grab               | 79-191        | N.L.              | 10.4 | 2000                 | - pH adjusted to 8.5                     |
|  |   | 12/06/79                  | grab               | 79-192        | 71 %              | 3.5  | 3500                 |  |
|  |   | 12/06/79                  | grab               | 79-192        | N.L.              | 3.5  | 3500                 | pH was adjusted to 6.0                   |
|  |   | 08/04/81                  | grab               | M2-81-43      | N.L.              | 9.4  | 1290                 |  |
|  |   | 07/14/81                  | grab               | M2-81-21      | >100 %            | 6.2  | 5500                 | -20 % dead in 100 %                      |
| CANADIAN INDUSTRIES LTD.<br>C.I.L.       |   |                           |                    |               |                   |      |                      |  |
| - Courtright (SW)                        | Intake [s]                                      | 07/12/76                  | grab               | 76-129        | N.L.              | 8.2  | 170                  | - unaerated                              |
|  | Effluent Fore-<br>bay in St.<br>Clair River [e] | 07/12/76                  | grab               | 6-128         | N.L.              | 7.45 | 210                  | - unaerated                              |
|  |   | 07/26/79                  | grab               | M2-79-23      | N.L.              | 8.5  | 225                  |  |
| - Parry Sound (NE)                       | Final Settling<br>Pond [e]                      | 09/14/76                  | grab               | M1-76-36      | >100 %            | 8.4  | 260                  | - unaerated-30 % mortality<br>in 100 %   |
|  |   | 08/29/77                  | grab               | M1-77-78      | 64.4 %            | 4.5  | 270                  | - unaerated                              |
|  |   | 08/29/77                  | grab               | M1-77-78      | >100 %            | 4.5  | 270                  | - 30 % mortality in 100 %                |
| - Sudbury (NE)                           | Final Effluent [e]                              | 08/30/77                  | grab               | M1-5-79       | 36.2 %            | 9.2  | 3200                 | - unaerated                              |
|  |   | 08/30/77                  | grab               | M1-5-79       | <100 %            | 9.2  | 3200                 | - 100 % killed all fish in<br>1.5 hours. |
| CANADIAN INTERNATIONAL<br>PAPER (C.I.P.) |   |                           |                    |               |                   |      |                      |  |
| - Hawkesbury (SE)                        | Sludge<br>Holding Pond [d]                      | 08/24/77                  | grab               | M2-76-46      | 13.5 %            | 3.7  | 1165                 | - unaerated LC50 range<br>10-18 %        |
|  |   | 08/11/77                  | grab               | M2-77-95      | 40 %              | 5.3  | 1350                 |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION             | EFFLUENT          | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                      |
|--|-------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|-------------------------------|
| CANADIAN INTERNATIONAL<br>PAPEK (C.I.P.) |                   |                           |                    |               |                   |      |              |                               |
| - Hawkesbury (SE)                        | Outfall of        | 08/11/77                  | grab               | M2-77-94      | 18 %              | 3.5  | 1200         |                               |
| (Continued)                              | Main Lagoon [e]   | 10/15/80                  | grab               | 80-198        | 18 %              | 3.6  | 1120         |                               |
|  | Settling Pond [d] | 08/24/76                  | grab               | M2-76-45      | 10.5 %            | 4.9  | 320          | - unaerated                   |
|  | Outfall of        |                           |                    |               |                   |      |              |                               |
|  | Main Lagoon [e]   | 10/04/81                  | grab               | 81-155        | 14 %              | 3.5  | 1340         |                               |
|  |                   | 10/05/81                  | grab               | 81-156        | 15 %              | 3.2  | 1275         |                               |
|  |                   | 10/06/81                  | grab               | 81-157        | 10 %              | 3.3  | 1280         |                               |
|  |                   | 10/07/81                  | grab               | 81-158        | 16 %              | 3.7  | 1160         |                               |
|  |                   | 10/08/81                  | grab               | 81-159        | 13 %              | 3.0  | 1150         |                               |
|  |                   | 10/08/81                  | grab               | 81-159        | 9 %               | 3.0  | 1150         | -Ottawa R. water used for     |
|  |                   | 07/27/81                  | grab               | M2-81-38      | 5 %               | 3.35 | 1650         | dilution                      |
|  |                   | 12/08/81                  | grab               | 81-179        | 7 %               | 3.5  | 1320         |                               |
|  |                   | 12/08/81                  | grab               | 81-179        | 6 %               | 3.5  | 1320         | -Ottawa R. water used for     |
|  |                   | 12/08/81                  | grab               | 81-180        | 18 %              | 2.8  | 1340         | dilution                      |
|  |                   | 12/08/81                  | grab               | 81-180        | 10 %              | 2.8  | 1340         | -Ottawa R. water used for     |
|  |                   | 12/09/81                  | grab               | 81-181        | 10 %              | 2.85 | 1430         | dilution                      |
|  |                   | 12/09/81                  | grab               | 81-181        | 6 %               | 2.85 | 1430         | -Ottawa R. water used for dil |
| CANADIAN OXY.<br>CHEMICALS               |                   |                           |                    |               |                   |      |              |                               |
| - Fort Erie (WC)                         | Process Sewer [e] | 09/16/81                  | 24hr comp.         | 81-133        | N.L.              | 7.75 | 255          |                               |
| CANADIAN SMELTING &<br>REFINERY          |                   |                           |                    |               |                   |      |              |                               |
| - North Bay (NE)                         | Lagoon [e]        | 07/20/77                  | grab               | M1-77-45      | N.L.              | 7.9  | 940          | - unaerated                   |
|  |                   | 07/20/77                  | grab               | M1-77-45      | N.L.              | 7.9  | 940          |                               |
| CARNATION FOODS                          |                   |                           |                    |               |                   |      |              |                               |
| - Alexandria (SE)                        | Final [e]         | 06/25/81                  | grab               | 81-90         | 40 %              | 6.25 | 285          | -after trickling filter       |



## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION      | EFFLUENT            | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                  |
|-----------------------------------|---------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|---------------------------|
| CELANESE                          |                     |                           |                    |               |                   |      |              |                           |
| - Cornwall (SE)                   | Final Effluent [e]  | 08/10/76                  | grab               | M2-76-35      | N.L.              | 7.57 | 280          | - unaerated               |
|                                   |                     | 07/12/77                  | grab               | M2-77-56      | N.L.              | 7.4  | 290          |                           |
|                                   |                     | 07/29/81                  | grab               | M2-81-40      | N.L.              | 8.0  | 387          |                           |
| - Millhaven (SE)                  | Sewer Manhole       | 06/07/76                  | grab               | M2-76-1       | N.L.              | 8.0  | 210          | - unaerated               |
|                                   | (Central            | 08/03/76                  | grab               | M2-76-34      | N.L.              | 7.8  | 270          |                           |
|                                   | Outfall) [p]        | 05/31/77                  | grab               | M2-77-6       | >100 %            | 6.9  | 285          | - 10 % mortality in 100 % |
|                                   | East Ditch          | 06/07/76                  | grab               | M2-76-2       | >100 %            | 8.05 | 275          | - 30 % mortality in 100 % |
|                                   | (Cooling            |                           |                    |               |                   |      |              | unaerated                 |
|                                   | Water) [e]          | 05/30/77                  | grab               | M2-77-7       | N.L.              | 7.7  | 280          |                           |
|                                   | West Ditch          | 06/07/76                  | grab               | M2-76-3       | >100 %            | 8.0  | 270          | - 10 % mortality in 100 % |
|                                   | (Cooling            |                           |                    |               |                   |      |              | unaerated                 |
|                                   | Water) [p]          | 05/30/77                  | grab               | M2-77-8       | N.L.              | 7.8  | 280          |                           |
| CHEMICAL DEVELOPMENT<br>OF CANADA |                     |                           |                    |               |                   |      |              |                           |
| - Longford Mills (C)              | Mix of lagoon       | 05/03/76                  | grab               | 76-56         | 24 %              | 7.1  |              | - unaerated               |
|                                   | and cooling         |                           |                    |               |                   |      |              | LC50 range 18-32 %        |
|                                   | water (shore        |                           |                    |               |                   |      |              |                           |
|                                   | of L. St. John) [d] |                           |                    |               |                   |      |              |                           |
|                                   | Cooling Water [p]   | 05/03/76                  | grab               | 76-55         | N.L.              | 7.9  | 110          | - unaerated               |
|                                   | Lagoon              | 04/20/76                  | grab               | 76-50         | <10 %             | 7.75 | 4075         | - unaerated 10 % killed   |
|                                   | Discharge [p]       | 04/20/76                  | grab               | 76-50         | 0.70 %            | 7.75 | 4075         | all fish in 15 min.       |
|                                   |                     | 05/03/76                  | grab               | 76-54         | 0.6 %             | 7.4  |              | - unaerated               |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION           | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO.         | 96-HOUR<br>-LC 50 | pH         | CONDUCTIVITY | COMMENTS                             |
|--|---|---------------------------|--------------------|-----------------------|-------------------|------------|--------------|--------------------------------------|
| CHROMASCO<br>- Haley Station (SE)      | Final Effl.<br>(40L from West<br>Cr. and 20L<br>of plant<br>effluent) [e] | 07/16/76<br>06/03/77      | grab<br>grab       | M2-76-26<br>M2-77-11  | N.L.<br>N.L.      | 8.8<br>8.7 | 650<br>330   | - unaerated                          |
|  | West Ck.<br>Ditch [e]   | 06/03/77                  | grab               | M2-77-12              | 38 %              | 9.4        | 700          | - LC50 range 30-50 %                 |
| CHRYSLER CANADA LTD.<br>- Windsor (SW) | Final Effluent [e]  | 03/28/77                  | grab               | 77-28                 | <70 %             | 8.2        | 1240         | - 70 % killed all fish in<br>48 hrs. |
| COBALT CAMP<br>- Farr Creek (NE)       | Mill Creek<br>Pond [e]  | 06/29/76                  | grab               | M1-76-11              | N.L.              | 7.2        | 180          | - unaerated                          |
| COLLIE FABRICS<br>-Almonte (SE)        | Main Mill<br>Outfall [m]  | 09/07/77<br>06/21/77      | grab<br>grab       | M2-77-114<br>M2-77-34 | 16 %<br>13 %      | 5.9<br>5.7 | 2800<br>3350 |                                      |
|  | Cooling<br>Water [m]  | 06/21/77                  | grab               | M2-77-32              | N.L.              | 8.1        | 165          |                                      |
|  | Dye Vat<br>Overflow [m]   | 06/21/77                  | grab               | M2-77-38              | N.L.              | 8.2        | 165          |                                      |
|  | Drainage Ditch [m]  | 08/24/76                  | grab               | M2-76-44              | <10 %             | 6.45       | 610          | -10 % killed all fish in 33hr        |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION               | EFFLUENT                | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                   |
|--|-------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|----------------------------|
| CONSOLIDATED BATHURST<br>- Whitby (C)      | Print Press<br>Wash [m] | 03/17/80                  | grab               | 80-36         | 0.54 %            | 8.0  | 700          | - unaerated                |
|  |                         | 03/17/80                  | grab               | 80-39         | 1.0 %             |      |              | - Treatment #1             |
|  |                         | 03/17/80                  | grab               | 80-40         | 1.0 %             |      |              | - unaerated                |
|  |                         | 03/17/80                  | grab               | 80-41         | 1.5 %             |      |              | - Treatment #2             |
|  |                         | 03/17/80                  | grab               | 80-36         | 0.8 %             |      |              | - unaerated                |
|  |                         | 03/17/80                  | grab               | 80-39         | 17 %              |      |              | - Treatment #3             |
|  |                         | 03/17/80                  | grab               | 80-40         | 5.4 %             |      |              | - Treatment #2             |
|  | Pure Red Dye [m]        | 03/17/80                  | grab               | 80-36         | 35ppm             |      |              | - unaerated                |
|  | Pure Yellow [m]         | 03/17/80                  | grab               | 80-38         | 260ppm            |      |              | - unaerated                |
|  |                         |                           |                    |               |                   |      |              |                            |
| CONSOLIDATED TEXTILES<br>- Alexandria (SE) | Combined<br>Final [e]   | 04/24/79                  | grab               | 79-17         | 1.6 %             | 6.0  | 740          | - LC50 range 0.5-5 %       |
|  |                         | 04/24/79                  | grab               | 79-17         | 3.3 %             | 6.0  | 740          | - unaerated                |
|  |                         | 06/25/81                  | grab               | 81-91         | 30 %              | 7.05 | 495          |                            |
|  |                         |                           |                    |               |                   |      |              |                            |
| CORBY'S DISTILLERY<br>- Corbyville (SE)    | Manhole by<br>River [e] | 05/30/77                  | grab               | M2-77-2       | N.L.              | 6.8  | 240          |                            |
|  |                         | 06/09/77                  | grab               | M2-77-15      | N.L.              | 8.3  | 270          |                            |
|  |                         | 06/09/77                  | grab               | M2-77-15      | >100 %            | 8.3  | 270          | - unaerated 10 % mortality |
|  |                         |                           |                    |               |                   |      |              | in 100 %                   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                       | EFFLUENT   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH    | CONDUCTIVITY | COMMENTS   |
|--|--|---------------------------|--------------------|---------------|-------------------|-------|--------------|--|
| CORNWALL CHEMICALS<br>- Cornwall (SE)              | Manhole #26 [p]  | 12/06/79                  | grab               | 79-193        | N.L.              | 8.7   | 1950         |  |
|  | Combined<br>Effluent [e]                               | 08/10/76                  | grab               | M2-76-38      | <10 %             |       |              | - unaerated - 10 % killed<br>all fish in 33 hrs. |
|  |  | 08/10/76                  | grab               | M2-76-38      | 7.5 %             |       |              | - unaerated                                      |
|  |  | 07/23/76                  | grab               | M2-76-28      | 24 %              | 7.9   | 4100         | - unaerated                                      |
|  |  | 08/10/76                  | grab               | M2-76-36      | 43 %              | 9.1   | 3425         | - unaerated                                      |
|  |  | 06/28/77                  | grab               | M2-77-43      | N.L.              | 6.6   | 1400         |  |
|  |  | 12/05/79                  | grab               | 79-189        | 87 %              | 3.8   | 5500         |  |
|  |  | 12/05/79                  | grab               | 79-189        | N.L.              | 3.8   | 5500         | - pH adjusted to 6.1                             |
|  |  | 12/06/79                  | grab               | 79-190        | 71 %              | 3.2   | 1650         |  |
|  |  | 12/06/79                  | grab               | 79-190        | N.L.              | 3.2   | 1650         | - pH adjusted to 6.1                             |
|  |  | 08/04/81                  | grab               | M2-81-45      | 84 %              | 3.7   | 1625         |  |
|  |  | 07/14/81                  | grab               | M2-81-22      | 77 %              | 6.7   | 2550         |  |
| CORNWALL<br>MUNICIPAL DISCHARGE<br>- Cornwall (SE) | Manhole in<br>front of<br>chlorination<br>building [e] | 08/10/77                  | grab               | M2-77-91      | 83 %              | 6.7   | 1000         | - LC50 range 70-100 %                            |
|  | Influent [p]   | 06/25/81                  | grab               | 81-84         | N.L.              | 7.15  | 800          |  |
|  | Effluent [e]   | 06/25/81                  | grab               | 81-85         | N.L.              | 7.15  | 810          | -after chlorination                              |
| COURTAULDS<br>- Cornwall (SE)                      | Viscose<br>(#5 Sewer) [e]                              | 08/27/76                  | grab               | M2-76-50      | 14 %              | 11.65 | 1800         | - unaerated<br>LC50 range 10-18 %                |
|  |  | 06/27/77                  | grab               | M2-77-39      | 5.0 %             | 13.2  | 8800         |  |
|  |  | 06/27/77                  | grab               | M2-77-39      | 4.2 %             | 13.2  | 8800         | - pH adjusted to 7.0                             |
|  |  | 08/16/77                  | grab               | M2-77-100     | 16 %              | 11.8  | 2400         | - LC50 range 10-25 %                             |
|  |  | 08/16/77                  | grab               | M2-77-100     | 8.5 %             | 11.8  | 2400         | - pH adjusted to 6.9                             |
|  |  | 11/30/77                  | grab               | M2-77-126     | 4.9 %             | 11.8  | 2800         |  |
|  |  | 04/24/79                  | grab               | 79-13         | N.L.*             | 12.1  | 2600         | - * at 2 %                                       |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                 | EFFLUENT                               | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH    | CONDUCTIVITY | COMMENTS                                 |
|--|--|---------------------------|--------------------|---------------|-------------------|-------|--------------|--|
| COURTAULDS<br>- Cornwall (SE)<br>(Continued) |  | 04/24/79                  | grab               | 79-13         | 3.5 %             | 12.1  | 2600         | - LC50 range 2-5 %<br>pH adjusted to 7.8 |
|  |  | 04/24/79                  | grab               | 79-13         | 3.5 %             | 12.1  | 2600         | - "                                      |
|  |  | 09/23/80                  | 24hr comp.         | 80-161        | 13 %              | 11.9  | 2570         |  |
|  |  | 09/23/80                  | 24hr comp.         | 80-172        | N.L.              | 7.3   | 1800         | - pH adjusted                            |
|  |  | 10/01/80                  | 24hr comp.         | 80-178        | 14 %              | 11.9  | 2600         |  |
|  |  | 10/01/80                  | 24hr comp.         | 80-189        | 49 %              | 7.8   | 1650         | - pH adjusted                            |
|  |  | 07/30/81                  | grab               | M2-81-42      | 13 %              | 11.9  | 4650         |  |
|  |  | 07/08/81                  | grab               | M2-81-18      | 2 %               | 12.5  | 10900        |  |
|  | Alkaline<br>(Sulphide)<br>Sewer #4 [e] | 03/09/76                  | grab               | 79-15         | 2.6 %             | 9.5   | 1850         | - unaerated                              |
|  |  | 08/16/77                  | grab               | M2-77-99      | 14 %              | 11.0  | 3200         |  |
|  |  | 08/16/77                  | grab               | M2-77-99      | 31 %              | 11.0  | 3200         | - pH adjusted                            |
|  |  | 11/30/77                  | grab               | M2-77-125     | N.L.              | 8.7   | 1500         |  |
|  |  | 04/24/79                  | grab               | 79-14         | N.L.              | 7.3   | 2050         |  |
|  |  | 09/23/80                  | 24hr comp.         | 80-160        | 15 %              | 10.4  | 2500         |  |
|  |  | 09/23/80                  | 24hr comp.         | 80-171        | 39 %              | 8.2   | 2450         | - pH adjusted                            |
|  |  | 10/01/80                  | 24hr comp.         | 80-177        | 2 %               | 10.6  | 2350         |  |
|  |  | 10/01/80                  | 24hr comp.         | 80-188        | 4 %               | 7.9   | 2400         | - pH adjusted                            |
|  |  | 07/08/81                  | grab               | M2-81-19      | 6 %               | 9.8   | 3100         |  |
|  |  | 07/21/81                  | 24hr comp.         | M2-81-29      | 38 %              | 11.5  | 2600         |  |
|  |  | 07/21/81                  | grab               | M2-81-30      | 92 %              | 9.38  | 4280         | -when effluent turned milky              |
|  |  | 07/22/81                  | 24hr comp.         | M2-81-31      | 68 %              | 9.7   | 1950         |  |
|  |  | 07/23/81                  | 24hr comp.         | M2-81-32      | 37 %              | 10.4  | 2400         |  |
|  |  | 07/23/81                  | 24hr comp.         | 81-113        | 32 %              | 10.75 | 2000         | -split with M2-81-32                     |
|  |  | 07/24/81                  | 24hr comp.         | M2-81-33      | 95 %              | 9.8   | 2075         |  |
|  |  | 07/25/81                  | 24hr comp.         | M2-81-35      | 41 %              | 10.5  | 3050         |  |
|  |  | 07/26/81                  | 24hr comp.         | M2-81-36      | 7 %               | 11.8  | 7300         |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                 | EFFLUENT          | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS  |
|--|-------------------|---------------------------|--------------------|---------------|-------------------|-----|--------------|---|
| COURTAULDS<br>- Cornwall (SE)<br>(Continued) | Acid Sewer #6 [e] | 03/09/76                  | grab               | 76-14         | 2.3 %             | 1.8 | 11600        | - unaerated   |
|  |                   | 08/27/76                  | grab               | 76-49         | <1.0 %            |     | 1800         | - " 70 % mortality in 1 %                                     |
|  |                   | 06/27/77                  | grab               | M2-77-40      | 1.4 %             | 1.2 | 12000        |   |
|  |                   | 06/27/77                  | grab               | M2-77-40      | 1.7 %             | 1.2 | 12000        | - pH adjusted to 7.0  |
|  |                   | 08/16/77                  | grab               | M2-77-101     | 1.4 %             | 1.9 | 13200        |   |
|  |                   | 08/16/77                  | grab               | M2-77-101     | 0.85 %            | 1.9 | 13400        |   |
|  |                   | 08/16/77                  | grab               | M2-77-101     | 1.0 %             | 1.9 | 13400        | - pH adjusted   |
|  |                   | 08/16/77                  | grab               | M2-77-101     | 1.2 %             | 1.9 | 13400        | - renewed static  |
|  |                   | 08/16/77                  | grab               | M2-77-101     | 1.0 %             | 1.9 | 13400        | - diluted with St. Lawrence River water                       |
|  |                   | 08/16/77                  | grab               | M2-77-101     | 1.5 %             | 1.9 | 13400        | - diluted with St. Lawrence R. water - pH adjusted            |
|  |                   | 08/16/77                  | grab               | M2-77-105     | 3.5 %             | 1.9 | 13400        | - H <sub>2</sub> S treated                                    |
|  |                   | 08/16/77                  | grab               | M2-77-107     | 0.25              | 1.9 | 13400        | - precipitate from H <sub>2</sub> S treated                   |
|  |                   | 08/16/77                  | grab               | M2-77-101     | 0.56 %            | 1.9 | 13400        | - stored 13 days @ 50C  |
|  |                   | 08/16/77                  | grab               | M2-77-101     | 0.59 %            | 1.9 | 13400        | - stored 13 days @ 200C                                       |
|  |                   | 08/16/77                  | grab               | M2-77-101     | 0.9 %             | 1.9 | 13400        | - stored 21 days @ 50C  |
|  |                   | 08/16/77                  | grab               | M2-77-101     | 1.05 %            | 1.9 | 13400        | - stored 21 days @ 200C                                       |
|  |                   | 08/16/77                  | grab               | M2-77-101     | 1.15 %            | 1.9 | 13400        | - stored 28 days @ 50C  |
|  |                   | 08/16/77                  | grab               | M2-77-101     | 1.2 %             | 1.9 | 13400        | - stored 28 days @ 200C                                       |
|  |                   | 11/29/77                  | grab               | M2-77-124     | 2.1 %             | 1.8 | 16000        |   |
|  |                   | 11/30/77                  | grab               | M2-77-127     | 2.2 %             |     |              |   |
|  |                   | 04/24/79                  | grab               | 79-12         | 1.4 %             | 1.5 | 22000        | - LC50 range 0.5-2.0 %  |
|  |                   | 04/24/79                  | grab               | 79-12         | <2 %              | 1.5 | 22000        | - pH adjusted to 7.8 - 2 % killed 90 % of the fish in 96 hrs. |
|  |                   | 10/01/80                  | 24hr comp.         | 80-179        | 4 %               | 1.7 | 16000        |   |
|  |                   | 10/01/80                  | 24hr comp.         | 80-190        | 5 %               | 7.3 | 10500        | - pH adjusted   |
|  |                   | 09/23/80                  | 24hr comp.         | 80-162        | 0.1 %             | 1.6 | 19500        |   |
|  |                   | 09/23/80                  | 24hr comp.         | 80-173        | 0.8 %             | 7.0 | 14400        | - pH adjusted   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                 | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH    | CONDUCTIVITY | COMMENTS            |
|--|---|---------------------------|--------------------|---------------|-------------------|-------|--------------|---------------------|
| COURTAULDS<br>- Cornwall (SE)<br>(Continued) | Acid Sewer #6   | 06/17/81                  | 24hr comp.         | 81-82         | 2.2 %             | 1.2   | 19500        | -split with M2-81-1 |
|  |   | 06/17/81                  | 24hr comp.         | M2-81-1       | 1.7 %             | 1.8   | 20500        |                     |
|  |   | 06/18/81                  | 24hr comp.         | M2-81-2       | 1.3 %             |       |              |                     |
|  |   | 06/19/81                  | 24hr comp.         | M2-81-3       | 1.4 %             | 1.9   | 16500        |                     |
|  |   | 06/20/81                  | 24hr comp.         | M2-81-4       | 1.1 %             | 1.8   | 20000        |                     |
|  |   | 06/22/81                  | 24hr comp.         | M2-81-6       | 1.1 %             | 1.8   | 24500        |                     |
|  |   | 06/22/81                  | 24hr comp.         | 82-83         | 1.5 %             | 1.4   | 20500        | -split with M2-81-6 |
|  |   | 06/23/81                  | 24hr comp.         | M2-81-7       | 1.1 %             | 1.8   | 21600        |                     |
|  |   | 06/24/81                  | 24hr comp.         | M2-81-8       | 1.1 %             | 1.6   | 25000        |                     |
|  |   | 06/25/81                  | 24hr comp.         | M2-81-9       | 0.9 %             | 1.9   | 22000        |                     |
|  |   | 06/26/81                  | 24hr comp.         | M2-81-10      | 1.0 %             | 1.7   | 23000        |                     |
|  |   | 06/27/81                  | 24hr comp.         | M2-81-11      | 2.0 %             | 1.7   | 20500        |                     |
|  |   | 06/21/81                  | 24hr comp.         | M2-81-5       | 1.1 %             | 1.8   | 22000        |                     |
|  |   | 06/28/81                  | 24hr comp.         | M2-81-12      | 1.6 %             | 1.9   | 19600        |                     |
|  |   | 06/29/81                  | 24hr comp.         | M2-81-13      | 1.4 %             | 1.8   | 20900        |                     |
|  |   | 06/30/81                  | 24hr comp.         | M2-81-14      | 2.0 %             | 1.6   | 21500        |                     |
|  |   | 06/30/81                  | 24hr comp.         | 81-104        | 1.0 %             | 1.55  | 21000        |                     |
|  |   | 07/01/81                  | 24hr comp.         | M2-81-15      | 1.6 %             | 1.8   | 17800        |                     |
|  |   | 07/02/81                  | 24hr comp.         | M2-81-16      | 1.9 %             | 1.7   | 18500        |                     |
|  |   | 07/03/81                  | 24hr comp.         | M2-81-17      | 1.6 %             | 1.7   | 20500        |                     |
|  | #7 Acid<br>Recovery [e]   | 07/13/81                  | grab               | M2-81-25      | >100 %            | 7.6   | 620          | -10 % dead in 100 % |
|  | Process<br>Cleanup<br>Sewer #13 [e]                                   | 03/09/76                  | grab               | 76-13         | 32 %              | 10.15 | 490          | - unaerated         |
|  |   | 06/27/77                  | grab               | 77-41         | 89 %              | 11.1  | 800          |                     |
|  |   | 08/16/77                  | grab               | 77-102        | N.L.              | 7.5   | 740          |                     |
|  |   | 09/23/80                  | 22hr comp.         | 80-165        | N.L.              | 7.3   | 680          |                     |
|  |   | 10/01/80                  | 23hr comp.         | 80-182        | 84 %              | 10.2  | 580          |                     |
|  | #7 Acid Recovery<br>(manhole in<br>front of plant<br>parking lot) [e] | 08/16/77                  | grab               | M2-77-98      | N.L.              | 7.6   | 3200         |                     |
|  |   | 09/23/80                  | grab               | M2-77-98      | N.L.              | 8.1   | 305          |                     |
|  |   | 10/01/80                  | grab               | 80-180        | N.L.              | 7.9   | 265          |                     |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                 | EFFLUENT                                     | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS  |
|--|--|---------------------------|--------------------|---------------|-------------------|------|--------------|---|
| COURTAULDS<br>- Cornwall (SE)<br>(Continued) | 50/50: Acid<br>Sewer/#5<br>Viscose Sewer [e] | 08/27/76                  | grab               | M2-76-50A     | 1.7 %             | 1.75 | 7800         | - unaerated   |
|  | #14 Tankcar<br>Unloading [e]                 | 09/23/80                  | grab               | 80-166        | N.L.              | 7.3  | 295          |   |
|  |  | 10/01/80                  | grab               | 80-183        | N.L.              | 7.3  | 310          |   |
|  | #15 Sewer<br>(Cooling<br>Water) [e]          | 09/23/80                  | grab               | 80-167        | N.L.              | 7.5  | 1650         |   |
|  |  | 10/01/80                  | grab               | 80-164        | N.L.              | 7.5  | 1850         |   |
|  | Pumphouse<br>(St. Lawrence<br>River) [s]     | 09/23/80                  | grab               | 80-169        | N.L.              | 8.1  | 240          |   |
|  |  | 10/01/80                  | grab               | 80-186        | N.L.              | 8.2  | 255          |   |
|  |  |                           |                    |               |                   |      |              |   |
| CYANAMID OF CANADA<br>- Welland (WC)         | Thompson's<br>Creek at<br>Garner Rd. [1]     | 08/27/74                  |                    |               | 10.8 %            |      |              | - fathead minnows<br>(P. promelas) used -<br>unaerated                          |
|  |  | 08/19/74                  |                    |               | 1.8 %             |      |              | - "   |
|  |  | 08/11/75                  |                    |               | 22 %              |      |              | - "   |
|  |  | 03/15/76                  | grab               | 76-20         | 21 %              | 8.0  | 1520         | - unaerated   |
|  |  | 03/29/76                  | grab               | 76-30         | 4.5 %             |      |              | - unaerated   |
|  |  | 03/13/79                  | grab               | 79-9          | 6 %               | 9.5  | 1000         | - LC50 range 2-10 %   |
|  |  | 03/13/79                  | grab               | 79-9          | 9.4 %             | 9.5  | 1000         | - pH adjusted to 7.4  |
|  |  | 03/13/79                  | grab               | 79-9          | 100 %             | 9.5  | 1000         | - pH adjusted to 7.8 - 1st<br>run Dowex ammonia removed.                        |
|  |  | 03/13/79                  | grab               | 79-9          | 75 %              | 9.5  | 1000         | - pH adjusted to 7.6 - 2nd<br>run Dowex ammonia removed.<br>LC50 range 50-100 % |
|  |  |                           |                    |               |                   |      |              |   |
|  |  |                           |                    |               |                   |      |              |   |



## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                        | EFFLUENT   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS   |
|---|--|---------------------------|--------------------|---------------|-------------------|-----|--------------|--|
| CYANAMID OF CANADA<br>- Welland (WC)<br>(Continued) | 36" Sewer [e]  | 08/27/74                  |                    |               | 2.85 %            |     |              | - unaerated - fathead minnows (P.promelas) used.                                     |
|   |  | 08/19/74                  |                    |               | 1.3 %             |     |              | - " LC50 range 1-1.8 %   |
|   |  | 08/11/75                  |                    |               | 5.6 %             |     |              | - unaerated - fathead minnows (P.promelas) used.                                     |
|   |  | 08/11/75                  |                    |               | 7.5 %             |     |              | - unaerated - fathead minnows (P.promelas) used.                                     |
|   |  | 08/11/75                  |                    |               | >7.5 %            |     |              | - unaerated - fathead minnows (P. promelas) used 7.5%, killed 30% of fish in 96 hrs. |
|   |  | /75                       |                    | CF-6          | 4 %               |     |              | - continuous flow  |
|   |  | 03/15/76                  | grab               | 76-22         | 2.2 %             | 9.4 | 3300         | - unaerated  |
|   |  | 03/29/76                  | grab               | 76-35         | <0.75 %           |     |              | - unaerated 0.75 % killed all fish in 1.5 hrs.                                       |
|   |  | 03/13/79                  | grab               | 79-8          | 0.75              | 10  | 3000         | - LC50 range 0.5-1 %   |
|   |  | 03/13/79                  | grab               | 79-8          | 3 %               | 10  | 3000         | - LC50 range 1-5 % - pH adjusted to 7.8  |
|   |  | 03/13/79                  | grab               | 79-8          | N.L.              | 10  | 3000         | - pH adjusted to 7.6 - 1 st run of Dowex ammonia removed                             |
|   |  | 03/13/79                  | grab               | 79-8          | 50 %              | 10  | 3000         | - pH adjusted to 7.5 - 2nd run of Dowex ammonia removed.                             |
|   | Welland R.<br>60-70 yds.<br>downstream of<br>36" Sewer [1] | 06/23/80                  | grab               | 80-94         | 21 %              | 9.2 | 495          |  |
|   |  | 03/15/76                  | grab               | 76-21         | <100 %            | 9.2 | 345          | - unaerated - 100 % killed all fish in 1 hr.   |
|   |  | 03/29/76                  | grab               | 76-36         | <100 %            |     |              | - unaerated - 100 % killed all fish in 0.5 hr.                                       |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                        | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS   |
|---|---|---------------------------|--------------------|---------------|-------------------|-----|--------------|--|
| CYANAMID OF CANADA<br>- Welland (WC)<br>(Continued) | Welland R.<br>at Moya Road<br>Bridge<br>upstream of<br>Cyanamid [1] | 03/15/76                  | grab               | 76-24         | N.L.              | 7.9 | 270          | - unaerated  |
|   |   | 03/29/76                  | grab               | 76-33         | N.L.              |     |              | - unaerated  |
|   |   | 06/23/80                  | grab               | 80-100        | N.L.              | 8.6 | 310          |  |
|   | Thompson Cr.<br>- downstream [1]                                    | 03/29/76                  | grab               | 76-32         | <100 %            |     |              | - unaerated 100 % killed all<br>fish in 0.5 hr.    |
|   |   | 03/29/76                  | grab               | 76-31         | 13.5 %            |     |              | - unaerated  |
|   |   | 06/23/80                  | grab               | 80-98         | 12 %              | 8.6 | 90           |  |
|   | 18" Amanol<br>Sewer to<br>Thompson Creek [e]                        | 03/29/76                  | grab               | 76-29         | <1.0 %            |     |              | - unaerated 1 % killed                             |
|   |   | 06/23/80                  | grab               | 80-95         | 14 %              | 8.9 | 900          | all fish in 1.5 hr.                                |
|   | Dicyandiamide<br>Sewer [e]  | 06/23/80                  | grab               | (-PROMPT-)    | 8.7 %             | 8.5 | 880          |  |
|   | Thompson Creek<br>(at Chippewa<br>Creek Bridge) [1]                 | 06/23/80                  | grab               | 80-99         | 100 %             | 8.6 | 1000         |  |
|   | Thompson Creek<br>at Thorold<br>Townline Rd. [1]                    | 03/13/79                  | grab               | 79-11         | N.L.              | 8.3 | 220          |  |
|   |   | 03/29/76                  | grab               | 76-28         | N.L.              |     |              | - unaerated  |
|   |   | 06/23/80                  | grab               | 80-97         | N.L.              | 7.5 | 440          |  |
|   | Intake [s]  | 08/27/74                  |                    |               | N.L.              |     |              | - unaerated - fathead<br>minnows (P.promelas) used |
|   |   | 08/11/75                  |                    |               | N.L.              |     |              | "  |
|   |   | 03/15/76                  | grab               | 76-23         | > 100 %           | 8.0 | 275          | - 10 % mortality - 100 % -<br>unaerated            |
|   |   | 03/29/76                  | grab               | 76-34         | N.L.              |     |              | - unaerated  |
|   |   | 03/13/79                  | grab               | 79-10         | N.L.              | 7.5 | 210          |  |
|   |   | 06/23/80                  | grab               | 80-101        | N.L.              | 8.7 | 295          |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                   | EFFLUENT                             | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIV-<br>TIVITY | COMMENTS  |
|--|--------------------------------------|---------------------------|--------------------|---------------|-------------------|------|----------------------|---|
| DELORO SMELTING<br>& REFINING<br>- Deloro (SE) | Final Effluent [e]                   | 06/14/76                  | grab               | M2-76-6       | 56 %              | 2.9  | 1210                 | - unaerated   |
|  |                                      | 05/27/77                  | grab               | M2-77-1       | 70 %              | 4.7  | 940                  | - LC50 range 50-100 %   |
|  | Moirra River [1]<br>at Malone Bridge | 06/14/76                  | grab               | M2-76-7       | N.L.              | 8.0  | 215                  | - unaerated   |
|  |                                      | 05/27/77                  | grab               | M2-77-2       | N.L.              | 7.7  | 210                  |   |
|  | Moirra River<br>at Hwy. 17 [1]       | 06/14/78                  | grab               | M2-76-8       | N.L.              | 8.25 | 215                  |   |
|  |                                      | 05/27/78                  | grab               | M2-77-3       | N.L.              | 7.8  | 190                  |   |
|  | Dunlop Lake<br>Intake (D-10) [s]     | 06/20/79                  | grab               | 79-66         | N.L.              | 6.0  | 340                  | - unaerated   |
|  |                                      | 08/22/79                  | grab               | 79-140        | N.L.              | 6.3  | 360                  | - unaerated   |
| DENISON MINE<br>- Denison Property<br>(NE)     | Stollery Lake<br>outflow (D-05) [e]  | 08/23/76                  | grab               | M1-76-24      | 75 %              | 8.1  | 2800                 | - unaerated<br>LC50 range 50-100 %                              |
|  |                                      | 07/20/77                  | grab               | M1-77-40      | 56 %              | 8.0  | 3200                 | - unaerated   |
|  |                                      | 07/20/77                  | grab               | M1-77-40      | <100 %            | 8.0  | 3200                 | - 100 % killed all fish<br>in 33hrs.                            |
|  |                                      | 06/20/79                  | grab               | 79-65         | N.L.              | 6.7  | 240                  | - unaerated   |
|  |                                      | 08/22/79                  | grab               | 79-133        | N.L.              | 7.5  | 2000                 | - unaerated   |
|  |                                      | 06/10/80                  | grab               | 80-90         | 61 %              | 8.7  | 2925                 |   |
|  |                                      | 06/10/80                  | grab               | 80-93         | N.L.              | 8.6  | 3500                 | - clinoptilolite treated  |
|  |                                      | 08/20/80                  | grab               | 80-137        | 20 %              | 10.0 | 3100                 |   |
|  |                                      | 08/20/80                  | grab               | 80-137        | >100 %            | 7.8  | 3250                 | - pH adjusted 30 % mortality<br>in 100 %                        |
|  |                                      | 08/20/80                  | grab               | 80-140        | <100 %            | 10.1 | 3300                 | - clinoptilolite treated<br>100 % killed all fish in<br>24 hrs. |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                      | EFFLUENT   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|---|--|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| DENISON MINE<br>- Denison Property<br>(Continued) | Tailings Effl.<br>after Barium<br>treatment at<br>Dam 8 (D-02) [p] | 06/20/79                  | grab               | 79-64         | 56 %              | 8.7  | 2700         | - unaerated<br>LC50 range 30-100 %                         |
|   |  | 06/20/79                  | grab               | 79-64         | <70 %             | 8.7  | 2700         | - unaerated - 70 % killed<br>all fish in 72 hrs.           |
|   |  | 08/22/79                  | grab               | 79-138        | 84 %              | 8.2  | 2650         | - unaerated -<br>LC50 range 70-100 %                       |
|   | (DS-04)<br>Feed to Barium<br>treatment<br>plant (DS-02) [p]        | 08/22/79                  | grab               | 79-142        | N.L.              | 7.7  | 1500         | - unaerated  |
|   |  | 06/20/79                  | grab               | 79-68         | >10 %             | 1.2  | 9500         | - unaerated-10 % mortality in<br>10 % - pH adjusted to 7.8 |
|   |  | 06/20/79                  | grab               | 79-68         | N.L.*             | 1.2  | 9500         | - pH adjusted to 7.8<br>* at 50 %                          |
|   | Tailings Effl.<br>after 1st<br>stage<br>settling<br>(DS-01) [p]    | 06/20/79                  | grab               | 79-67         | N.L.              | 8.2  | 500          | - unaerated  |
|   |  | 08/22/79                  | grab               | 79-141        | <100 %            | 5.4  | 1700         | - unaerated - 100 % killed<br>all fish in 48 hrs.          |
|   |  | 08/22/79                  | grab               | 79-141        | N.L.              | 5.4  | 1700         | - unaerated - pH adjusted<br>to 8.4                        |
|   | New Dam<br>overflow [e]  | 08/16/76                  | grab               | M1-76-22      | <10 %             | 2.7  | 2500         | - unaerated - 10 % killed<br>all fish in 4 hrs.            |
|   |  | 08/16/76                  | grab               | M1-76-22      | N.L.              | 2.7  | 2500         | - pH adjusted to 7.2                                       |
|   |  | 06/20/77                  | grab               | M1-77-23      | N.L.              | 2.4  | 2400         | - pH adjusted to 7.1<br>unaerated                          |
|   |  | 06/20/77                  | grab               | M1-77-23      | 100 %             | 5.6  | 2000         |  |
| DICKENSON GOLD MINES<br>- Balmer Lake (NW)        | Dickenson<br>Tailings Pond [p]                                     | 08/16/78                  | grab               | 78-50         | <1 %              | 10.1 | 850          | - 1 % killed all fish in<br>24 hrs.                        |
|   |  | 08/16/78                  | grab               | 78-50         | 0.66 %            | 10.1 | 850          |  |
|   |  | 07/16/79                  | grab               | 79-86         | 2.2 %             | 8.3  | 740          | - unaerated LC50 range 1-5 %                               |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS                                 |
|------------------------------|---|---------------------------|--------------------|---------------|-------------------|-----|--------------|--|
| DICKENSON GOLD MINES         |   |                           |                    |               |                   |     |              |  |
| - Balmer Lake (NW)           | Balmer Cr.  | 08/15/78                  | grab               | 78-45         | N.L.              | 7.0 | 250          |  |
| (Continued)                  | near Chukuni<br>River [1]                         | 07/16/79                  | grab               | 79-87         | >100 %            | 7.4 | 425          | - unaerated - 10 % mortality<br>in 100 % |
|                              | Balmer Creek<br>downstream of<br>Balmer Lake [e]  | 06/08/81                  | grab               | M3-81-15      | <100 %            | 7.6 |              | - 100 % killed all fish in<br>24 hours   |
|                              |   | 06/29/81                  | grab               | M3-81-43      | 58                | 7.6 | 660          |  |
|                              |   | 08/10/81                  | grab               | M3-81-101     | >100 %            | 7.2 | 610          | - 40% dead in 100%                       |
|                              | Tailings pond<br>decant (at<br>Dam #2 [e]         | 06/08/81                  | grab               | M3-81-16      | N.L.*             | 8.0 |              | - *at 40 %                               |
|                              |   | 06/29/81                  | grab               | M3-81-42      | N.L.              | 7.6 | 387          |  |
|                              |   | 06/29/81                  | grab               | M3-81-42      | N.L.              | 7.6 | 387          | - unaerated                              |
|                              |   | 08/10/81                  | grab               | M3-81-99      | N.L.              | 8.0 | 530          |  |
|                              | Mine Water [p]                                    | 08/10/81                  | grab               | M3-81-100     | N.L.              | 7.6 | 3200         |  |
|                              | Chukuni R. upstream<br>of Balmer Creek [1]        | 08/15/78                  | grab               | 78-46         | N.L.              | 7.9 | 46           |  |
|                              | Chukuni River down-<br>stream of Balmer Creek [1] | 08/15/78                  | grab               | 78-47         | N.L.              | 8.0 | 50           |  |
|                              | Balmer Lake<br>downstream of Balmer [1]           | 08/16/78                  | grab               | 78-48         | N.L.              | 7.2 | 75           |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION               | EFFLUENT   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                  |
|--|--|---------------------------|--------------------|---------------|-------------------|------|--------------|---------------------------|
| DICKENSON GOLD MINES<br>- Balmer Lake (NW) | Balmer Creek down-<br>stream of Balmer L.<br>[1] | 08/16/78                  | grab               | 78-49         | N.L.              | 7.1  | 500          |                           |
|  |  | 08/18/80                  | grab               | M3-80-56      | >100 %            | 7.5  |              | - 10 % mortality in 100 % |
|  | Tailings Pond<br>Decant [1]                      | 08/18/80                  | grab               | M3-80-54      | 7 %               | 6.7  |              |                           |
|  |  |                           |                    |               |                   |      |              |                           |
| DOFASCO<br>- Hamilton (WC)                 | Blast Furnace                                    | 10/03/77                  | grab               | 76-116        | >100 %            | 8.0  | 530          | - 30 % mortality in 100 % |
|  | cooling water with                               | 10/03/77                  | grab               | 76-116        | N.L.*             |      |              | - * 48 hr. LC50 at 50 %   |
|  | Stretford liquid [p]                             |                           |                    |               |                   |      |              |                           |
|  | Stretford Liquor [p]                             | 10/03/77                  | grab               | 76-117        | 0.09              | 9.1  | 90000        |                           |
|  | Lagoon   | 08/05/75                  | grab               |               | N.L.              |      |              | - fathead minnow used     |
|  | overflow   |                           |                    |               |                   |      |              | (P. Pomelas)              |
|  | with Stretford                                   | 10/03/77                  | grab               | 76-115        | N.L.*             | 8.1  | 400          | - * 24hr.                 |
|  | liquor [p]                                       | 10/03/77                  | grab               | 76-115        | N.L.*             |      |              | - * 24hr.                 |
|  | Blast Furnace [e]                                | 03/13/78                  | grab               | 78-9          | <30 %             | 7.4  | 650          | - 30 % killed all fish    |
|  | cooling water sewer                              | 03/13/78                  | grab               | 78-9          | 24 %              | 7.8  | 600          | in 48 hrs.                |
|  | Bay front  | 03/13/78                  | grab               | 78-10         | 38 %*             | 8.0  | 600          | * 72 hr LC50              |
|  | cooling water sewer                              |                           | 03/13/78           | grab          | 78-10             | N.L. | 8.0          | 465                       |
|  | [e]  |                           |                    |               |                   |      |              |                           |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION              | EFFLUENT                                | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|---|---|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| DOFASCO<br>- Hamilton (WC)<br>(Continued) | Intake [s]                              | 03/13/78                  | grab               | 78-11         | N.L.*             | 7.8  | 445          | - * 24 hr.                                       |
|   |   | 08/09/78                  | grab               | M2-78-213     | N.L.              | 7.8  | 520          |  |
|   |   | 08/10/78                  | grab               | M2-78-216     | N.L.              | 7.83 | 500          |  |
|   |   | 08/11/78                  | grab               | M2-78-220     | N.L.              | 7.9  | 490          |  |
|   |   | 08/15/78                  | grab               | M2-78-224     | N.L.              | 8.0  | 540          |  |
|   |   | 08/16/78                  | grab               | M2-78-228     | N.L.              | 8.2  | 490          |  |
|   |   | 08/17/78                  | grab               | M2-78-231     | N.L.              | 8.0  | 480          |  |
|   |   | 08/22/78                  | grab               | M2-78-234     | N.L.              | 7.1  | 440          |  |
|   |   | 08/23/78                  | grab               | M2-78-239     | N.L.              | 7.9  | 490          |  |
|   |   | 08/24/78                  | grab               | M2-78-242     | N.L.              | 8.2  | 495          |  |
|   |   | 08/29/78                  | 24hr comp.         | M2-78-248     | N.L.              | 8.0  | 480          |  |
|   |   | 08/30/78                  | 24hr comp.         | M2-78-252     | N.L.              | 8.5  | 480          |  |
|   |   | 08/31/78                  | 24hr comp.         | M2-78-256     | N.L.              | 7.8  | 490          |  |
|   |   | 09/06/78                  | 24hr comp.         | M2-78-258     | N.L.              | 8.5  | 490          |  |
|   |   | 09/07/78                  | 24hr comp.         | M2-78-262     | N.L.              | 7.3  | 490          |  |
|   |   | 09/08/78                  | 24hr comp.         | M2-78-266     | N.L.              | 7.5  | 400          |  |
|   |   | 09/12/78                  | 24hr comp.         | M2-78-272     | N.L.              | 8.0  | 410          |  |
|   |   | 09/13/78                  | 24hr comp.         | M2-78-276     | N.L.              | 7.7  | 554          |  |
|   | Turbo Blower [e]                        | 08/10/78                  | grab               | M2-78-217     | N.L.              | 8.25 | 50           |  |
|   |   | 08/11/78                  | grab               | M2-78-221     | N.L.              | 8.2  | 100          |  |
|   |   | 09/12/78                  | grab               | M2-78-274     | 77 %              | 9.2  | 75           |  |
|   |   | 09/13/78                  | grab               | M2-78-279     | N.L.              | 8.0  | 510          |  |
|   |   | 09/14/78                  | grab               | M2-78-280     | N.L.              | 8.3  | 500          |  |
|   | Coke Plant<br>(oven) &<br>Melt Shop [e] | 08/05/75                  | grab               |               | N.L.              |      |              | - P. Promelas used                               |
|   |   | 08/05/75                  | grab               |               | <100 %            |      |              | - unaerated - 100 % killed<br>all fish in 4 hrs. |
|   |   | 08/05/75                  |                    |               | 68.2 %            |      |              | - unaerated                                      |
|   |   | 08/05/75                  |                    |               | 50 %              |      |              | - unaerated                                      |
|   |   | 08/05/75                  |                    |               | 38 %              |      |              | - continuous flow                                |
|   |   | 03/10/76                  | grab               | 76-61         | <56 %             | 7.7  | 540          | - unaerated - 56 % killed all<br>fish in 72 hrs. |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION              | EFFLUENT          | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|---|-------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| DOFASCO<br>- Hamilton (WC)<br>(Continued) |                   | 03/10/76                  | grab               | 76-62         | <10 %             | 8.2  | 1410         | - unaerated - 10 % killed all fish in 2 hrs. with ammonium thiocyanate |
|   |                   | 03/10/76                  | grab               | 76-62         | 4.2 %             | 8.2  | 1410         | - unaerated - with ammonium thiocyanate                                |
|   |                   | 03/13/78                  | grab               | 78-8          | N.L.*             | 7.9  | 480          | - * at 50 %  |
|   |                   | 03/13/78                  | grab               | 78-8          | N.L.              | 7.9  | 480          |  |
|   |                   | 08/09/78                  | grab               | M2-78-212     | N.L.              | 7.4  | 400          |  |
|   |                   | 08/10/78                  | grab               | M2-78-215     | N.L.              | 7.45 | 610          |  |
|   |                   | 08/11/78                  | grab               | M2-78-219     | N.L.              | 7.8  | 540          |  |
|   |                   | 08/15/78                  | grab               | M2-78-223     | N.L.              | 7.3  | 590          |  |
|   |                   | 08/16/78                  | grab               | M2-78-227     | N.L.              | 7.45 | 540          |  |
|   |                   | 08/17/78                  | grab               | M2-78-230     | N.L.              | 7.3  | 590          |  |
|   |                   | 08/22/78                  | grab               | M2-78-233     | N.L.              | 7.3  | 620          |  |
|   |                   | 08/23/78                  | grab               | M2-78-238     | 100 %             | 7.5  | 700          |  |
|   |                   | 08/29/78                  | 24hr comp.         | M2-78-241     | N.L.              | 7.5  | 600          |  |
|   |                   | 08/30/78                  | 24hr comp.         | M2-78-247     | N.L.              | 7.1  | 580          |  |
|   |                   | 08/31/78                  | 24hr comp.         | M2-78-255     | N.L.              | 7.1  | 600          |  |
|   |                   | 09/07/78                  | 24hr comp.         | M2-78-264     | N.L.              | 7.3  | 480          |  |
|   |                   | 09/08/78                  | 24hr comp.         | M2-78-268     | N.L.              | 8.0  | 490          |  |
|   |                   | 09/12/78                  | 24hr comp.         | M2-78-275     | N.L.              | 8.0  | 470          |  |
|   |                   | 09/13/78                  | 24hr comp.         | M2-78-278     | N.L.              | 7.2  | 560          |  |
|   | Silicon Plant [e] | 08/24/78                  | grab               | M2-78-226     | 89 %              | 9.7  | 370          | - white coloured effluent  |
|   |                   | 08/24/78                  | grab               | M2-78-245     | 90 %              | 9.55 | 430          | - green coloured effluent  |
|   |                   | 08/30/78                  | grab               | M2-78-253     | 24 %              | 10.8 | 480          | - LC50 range 15-40 %   |
|   |                   | 09/06/78                  | grab               | M2-78-260     | >100 %            | 10.0 | 325          | - 20 % mortality in 100 %  |
|   |                   | 09/07/78                  | grab               | M2-78-265     | >100 %            | 9.5  | 390          | - 30 % mortality in 100 %  |
|   |                   | 09/08/78                  | grab               | M2-78-269     | 78 %              | 9.5  | 380          |  |
|   |                   |                           |                    |               |                   |      |              |  |



## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION              | EFFLUENT                          | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS                                     |
|---|-----------------------------------|---------------------------|--------------------|---------------|-------------------|-----|--------------|--|
| DOFASCO<br>- Hamilton (WC)<br>(Continued) | Boiler House [e]                  | 08/17/78                  | grab               | M2-78-225     | N.L.              | 9.1 | 630          |  |
|   |                                   | 08/23/78                  | grab               | M2-78-235     | N.L.              | 7.5 | 520          |  |
|   |                                   | 08/24/78                  | grab               | M2-78-243     | N.L.              | 8.0 | 500          |  |
|   |                                   | 08/29/78                  | grab               | M2-78-249     | N.L.              | 8.0 | 490          |  |
|   | Ottawa Street<br>Sewer (slip) [e] | 07/10/69                  | grab               | 69-36         | 77.5 %            |     |              | - unaerated, red belly dace<br>used (C. eos) |
|   |                                   | 08/05/75                  | grab               |               | N.L.              |     |              | - fathead minnows used<br>(P.promelas)       |
|   |                                   | 05/10/76                  | grab               | 76-63         | 50 %              | 7.2 | 355          | - unaerated                                  |
|   |                                   | 08/09/78                  | grab               | M2-78-211     | N.L.              | 8.4 | 560          |  |
|   |                                   | 08/10/78                  | grab               | M2-78-214     | N.L.              | 8.7 | 510          |  |
|   |                                   | 08/11/78                  | grab               | M2-78-218     | N.L.              | 8.3 | 500          |  |
|   |                                   | 08/15/78                  | grab               | M2-78-222     | N.L.              | 8.6 | 510          |  |
|   |                                   | 08/16/78                  | grab               | M2-78-226     | N.L.              | 8.5 | 470          |  |
|   |                                   | 08/22/78                  | grab               | M2-78-232     | N.L.              | 8.3 | 500          |  |
|   |                                   | 08/23/78                  | grab               | M2-78-229     | 78 %              | 8.4 | 500          | - LC50 range 60-100 %                        |
|   |                                   | 08/24/78                  | grab               | M2-78-240     | N.L.              | 8.5 | 500          |  |
|   |                                   | 08/29/78                  | 24hr comp.         | M2-78-246     | 100 %             | 8.5 | 500          |  |
|   |                                   | 08/30/78                  | 24hr comp.         | M2-78-251     | N.L.              | 7.5 | 500          |  |
|   |                                   | 08/31/78                  | 24hr comp.         | M2-78-254     | N.L.              | 8.0 | 500          |  |
|   |                                   | 08/06/78                  | 24hr comp.         | M2-78-259     | N.L.              | 8.0 | 500          |  |
|   |                                   | 09/07/78                  | 24hr comp.         | M2-78-263     | N.L.              | 8.0 | 520          |  |
|   |                                   | 09/08/78                  | 24hr comp.         | M2-78-267     | N.L.              | 8.0 | 490          |  |
|   |                                   | 09/12/78                  | 24hr comp.         | M2-78-273     | N.L.              | 8.5 | 450          |  |
|   |                                   | 09/13/78                  | 24hr comp.         | M2-78-247     | N.L.              | 8.2 | 550          |  |
| DOMINE<br>- Timmins (NE)                  | Tailings Pond<br>Decant [e]       | 10/28/80                  | grab               | 80-202        | 4 %               | 8.7 | 770          |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                | EFFLUENT                     | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|---|------------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| DOMTAR CHEMICALS<br>- Trenton (SE)          | Outlet for<br>Oilskimmer [e] | 07/06/77                  | grab               | M2-77-45      | 70 %              | 6.5  | 235          | - LC50 range 50-100 %                            |
|   | South Ditch [e]              | 07/06/77                  | grab               | M2-77-44      | N.L.              | 6.7  | 570          |  |
| DOMTAR CONSTRUCTION<br>- Thorold (WC)       | Final [e]                    | 04/23/80                  | grab               | 80-57         | <30 %*            | 7.3  | 310          | - * 100 % mortality after<br>48 hrs.             |
|   |                              | 12/09/80                  | grab               | 80-210        | 14 %              | 7.0  | 335          |  |
| DOMTAR FINE PAPERS LTD.<br>- Cornwall (SE)  | Discharge of                 | 07/23/76                  | grab               | M2-76-29      | 76 %              | 6.5  | 950          | - unaerated - LC50 range<br>56-100 %             |
|   | Clarifier [e]                | 06/28/77                  | grab               | M2-77-42      | 94 %              | 6.4  | 1400         |  |
|   |                              | 10/15/80                  | grab               | 80-199        | 77 %              | 9.8  | 580          |  |
|   |                              | 07/14/81                  | grab               | M2-81-23      | 59 %              | 7.6  | 1040         |  |
| DOMTAR FINE PAPERS<br>- St. Catherines (WC) | Final [e]                    | 04/23/80                  | grab               | 80-54         | <30 %*            | 7.4  | 375          | - * 90% mortality in 96 hrs.                     |
|   |                              | 10/07/80                  | grab               | 80-196        | 90 %              | 7.1  | 438          |  |
|   |                              | 12/01/81                  | grab               | 81-174        | N.L.              | 7.69 | 425          |  |
| DOMTAR PACKAGING LTD.<br>- Red Rock (NW)    | Final [e]                    | 06/16/75                  |                    |               | 28 %              |      |              | - steam stripper not in<br>operation - unaerated |
|   |                              | 06/24/75                  |                    |               | 49 %              | 7.3  | 195          | - unaerated                                      |
|   |                              | 07/07/75                  |                    |               | 25 %              |      |              | - unaerated, continuous flow                     |
|   |                              | 07/14/75                  |                    |               | 22 %              |      |              | - " " "  |
|   |                              | 08/02/77                  | grab               | M1-77-53      | N.L.              | 6.5  | 495          |  |
|   |                              | 09/13/77                  | grab               | M1-77-90      | >100 %            | 8.7  | 380          | - 30% mortality in 100%<br>at 24hr.              |
|   |                              | 09/13/77                  | grab               | M1-77-90      | <65 %             |      |              | - 95% mortality in 65%<br>at 96 hrs.             |
|   |                              | 07/07/80                  | grab comp.         | M3-80-1       | 22 %              | 7.7  | 750          |  |
|   |                              | 07/22/80                  | 4hr grab<br>comp.  | M3-80-18      | 30 %              | 8.8  |              |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                            | EFFLUENT                           | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD  | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                              |
|---|------------------------------------|---------------------------|---------------------|---------------|-------------------|------|--------------|---------------------------------------|
| DOMTAR PACKAGING LTD.<br>- Red Rock (NW)<br>(Continued) |                                    | 07/30/80                  | 4hr grab<br>comp.   | M3-80-27      | 30 %              | 9.9  | 800          |                                       |
|   |                                    | 08/25/80                  | 4hr grab<br>comp.   | M3-80-61      | N.L.              | 7.3  |              | - Lock Lomand dilution<br>water used  |
|   |                                    | 08/25/80                  | 4hr grab<br>comp.   | M3-80-61      | 100 %             | 7.3  |              | - Domatar Research well<br>water used |
|   |                                    | 10/20/80                  | 4hr grab            | 80-200        | 30 %              | 8.6  | 510          |                                       |
|   |                                    | 03/09/81                  | grab                | 81-25         | 60 %              | 6.85 | 475          |                                       |
|   |                                    | 03/09/81                  | grab                | 81-25         | 61 %              | 6.85 | 475          | -diluted with mill water              |
|   |                                    | 08/12/81                  | 4hr comp.           | M3-81-102     | 39 %              | 7.9  |              |                                       |
|   |                                    | 08/18/81                  | comp.               | M3/81/107     | >100 %            | 6.8  |              | -20 % dead in 100 %<br>woodroom down  |
|   |                                    | 08/25/81                  | 3hr comp.           | M3-81-113     | 62 %              | 8.3  |              |                                       |
|   |                                    | 08/12/81                  | 4hr comp.           | 81-126        | 50 %              | 7.45 | 570          | -split with Me-81-113                 |
|   | Uncontaminated<br>stream [p]       | 07/07/80                  | 2.5hr grab<br>comp. | M3-80-2       | N.L.              | 7.6  | 150          |                                       |
|   |                                    | 07/22/80                  | 4hr grab<br>comp.   | M3-80-19      | 70 %              | 7.3  | 195          |                                       |
|   | Clarifier<br>Outfall [p]           | 07/07/80                  | 2.5hr grab<br>comp. | M3-80-3       | 37 %              | 6.8  | 470          |                                       |
|   |                                    | 07/22/80                  | 4hr grab            | M3-80-20      | 34 %              | 6.9  | 550          |                                       |
|   | Low suspended<br>solids stream [p] | 07/07/80                  | 2.5hr grab<br>comp. | M3-80-4       | 30 %              | 9.7  | 1470         |                                       |
|   |                                    | 07/22/80                  | 4hr grab<br>comp.   | M3-80-21      | 30 %              | 10.5 | 1300         |                                       |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                                | EFFLUENT                                    | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCT-<br>TIVITY | COMMENTS  |
|---|---|---------------------------|--------------------|---------------|-------------------|------|--------------------|---|
| DOMTAR PACKAGING LTD. Combined sample [e]<br>- Trenton (SE) |   | 11/17/81                  | grab               | 81-170        | 38 %              | 7.69 | 1040               |   |
|   | Process<br>Effluent &<br>Vacuum Seals [e]   | 05/03/76                  | grab               | 76-57         | 17 %              | 7.1  | 355                |   |
|   |   | 05/03/76                  | grab               | 76-57         | < 3.2 %           | 7.1  | 355                | - unaerated - 3.2 % killed<br>all fish in 48 hrs.   |
|   |   | 09/13/76                  | grab               | M2-76-58      | 4.2 %             | 7.35 | 2300               | - unaerated<br>LC50 range 3.2-5.6 %   |
|   |   | 09/13/76                  | grab               | M2-76-58      | 13.5 %            | 7.35 | 2300               | - LC50 range 10-18 %  |
|   | Process<br>Effluent<br>(White<br>Water) [e] | 08/23/76                  | grab               | M2-76-42      | 7.6 %             |      |                    |   |
|   |   | 08/23/76                  | grab               | M2-76-43      | < 5.6 %           |      |                    | - unaerated - 5.6 % killed<br>all fish in 48 hrs.   |
|   |   | 06/13/77                  | grab               | M2-77-16      | 24 %              | 7.5  | 2200               | - LC50 range 20-30 %  |
|   |   | 07/26/77                  | grab               | M2-77-63      | 28 %              | 7.7  | 1320               | - LC50 range 20-40 %  |
|   |   | 07/26/77                  | grab               | M2-77-65      | 33 %              | 8.5  | 6600               |   |
|   |   | 03/22/78                  | grab               | M2-78-7       | 7.2 %             | 7.4  | 7100               |   |
|   |   | 05/02/78                  | grab               | M2-78-14      | 2.3 %             | 8.5  | 9500               |   |
|   |   | 05/26/80                  | grab               | 80-75         | 6 %               | 7.0  | 5000               |   |
|   | Economizer<br>Pad Drainage [e]              | 09/13/76                  | grab               | M2-76-59      | N.L.              | 6.9  | 35                 | - unaerated   |
|   |   | 06/13/77                  | grab               | M2-77-17      | N.L.              | 7.9  | 240                | - unaerated   |
|   |   | 03/22/78                  | grab               | M2-78-2       | N.L.              | 7.4  | 260                |   |
|   | Vacuum Pump<br>Seals Over-<br>flow [e]      | 05/02/78                  | grab               | M2-79-9       | 24 %              | 8.5  | 2950               |   |
|   |   | 05/26/80                  | grab               | 80-72         | 7 %               | 7.0  | 2500               | - O <sub>2</sub> levels were far too<br>low at the end of the test<br>- sample had a very high BOD <sub>5</sub> |
|   | Sulphite<br>Liquor [e]                      | 03/08/76                  | grab               | 76-17         | < 0.75 %          | 7.25 | 350                | - unaerated - 0.75 % killed<br>all fish in 44 hrs.  |
|   |   | 03/08/76                  | grab               | 76-17         | 6.6 %             | 7.5  | 350                |   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                           | EFFLUENT                   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS  |
|--|----------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|---|
| DOMTAR PACKAGING LTD.<br>- Trenton (SE)<br>(Continued) | Vacuum Pump<br>Seal [e]    | 06/13/77                  | grab               | M2-77-22      | 14 %              | 8.1  | 940          | - LC50 range 10-20 %                              |
|  |                            | 07/26/77                  | grab               | M2-77-66      | 13 %              | 7.8  | 2700         |   |
|  |                            | 03/27/78                  | grab               | M2-78-6       | N.L.              | 7.3  | 430          |   |
|  |                            | 05/02/78                  | grab               | M2-78-13      | 52 %              | 7.9  | 730          |   |
|  |                            | 03/26/80                  | grab               | 80-73         | N.L.*             | 7.4  | 320          | * at 65 %   |
|  | Digester [e]<br>Drains     | 09/13/76                  | grab               | M2-76-61      | <100 %            | 8.95 | 855          | - unaerated - 100 % killed<br>all fish in 12 hrs. |
|  |                            | 06/13/77                  | grab               | M2-77-67      | N.L.              | 9.0  | 320          |   |
|  |                            | 07/26/77                  | grab               | M2-77-19      | N.L.              | 7.0  | 190          |   |
|  |                            | 03/22/78                  | grab               | M2-78-3       | N.L.              | 9.3  | 630          |   |
|  |                            | 05/02/78                  | grab               | M2-78-10      | N.L.              | 9.7  | 500          |   |
|  |                            | 05/26/80                  | grab               | 80-74         | >100 %            | 7.2  | 620          | - 10 % mortality in 100 %                         |
|  | Economizer<br>Effluent [e] | 09/13/76                  | grab               | M2-76-60      | N.L.              | 7.5  | 190          |   |
|  |                            | 06/13/77                  | grab               | M2-77-18      | N.L.              | 7.8  | 220          |   |
|  |                            | 07/26/77                  | grab               | M2-77-70      | N.L.              | 6.2  | 190          |   |
|  |                            | 03/22/78                  | grab               | M2-78-1       | N.L.              | 7.7  | 750          |   |
|  |                            | 05/02/78                  | grab               | M2-78-8       | N.L.              | 7.4  | 220          |   |
|  |                            | 05/26/80                  | grab               | 80-69         | N.L.              | 7.7  | 190          |   |
|  | Cooling<br>Water [e]       | 09/13/76                  | grab               | M2-76-63      | N.L.              | 7.8  | 190          | - unaerated                                       |
|  |                            | 06/13/77                  | grab               | M2-77-21      | N.L.              | 7.5  | 230          |   |
|  |                            | 07/26/77                  | grab               | M2-77-64      | N.L.              | 8.5  | 270          |   |
|  |                            | 03/22/78                  | grab               | M2-78-4       | N.L.              | 8.1  | 365          |   |
|  |                            | 05/02/78                  | grab               | M2-78-11      | N.L.              | 7.4  | 220          |   |
|  |                            | 05/26/80                  | grab               | 80-71         | >100 %            | 8.1  | 195          | - 20 % mortality in 100 %                         |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                          | EFFLUENT                                  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD   | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH    | CONDUCTIVITY | COMMENTS  |
|---|---|---------------------------|----------------------|---------------|-------------------|-------|--------------|---|
| DOMTAR PACKAGING LTD.<br>- Trenton (SE)<br>(Continue) | Combined<br>Sample [e]                    | 06/13/77                  | a series<br>of grabs | lab sample    | 47 %              | 8.3   | 820          |   |
|   |   | 07/26/77                  | "                    | M2-77-69      | 76 %              | 8.8   | 690          |   |
|   |   | 03/22/78                  | "                    | lab sample    | 39 %              | 7.7   | 1470         | - LC50 range 30-50 %  |
|   |   | 05/02/78                  | "                    | lab sample    | 25 %              | 8.6   | 1575         |   |
|   |   | 05/26/80                  | "                    | 80-76         | <30 %             | 7.5   | 1035         | - lower concentrations had<br>very low O <sub>2</sub> levels.<br>- 70 % mortality in 30 %<br>after 96hrs. |
|   |   |                           |                      |               |                   |       |              |   |
|   | Boiler House [e]                          | 06/13/76                  | grab                 | M2-76-42      | <100 %            | 11.05 | 625          | - 100 % killed all fish<br>in 1.5 hr.   |
|   |   | 06/13/77                  | grab                 | M2-77-20      | 44 %              | 11.3  | 640          | - LC50 range 30-65 %  |
|   |   | 06/13/77                  | grab                 | M2-77-22      | N.L.*             | 11.3  | 640          | - pH adjusted to 7.0<br>* at 65 %   |
|   |   | 07/26/77                  | grab                 | M2-77-68      | 56 %              | 10.8  | 580          |   |
|   |   | 07/26/77                  | grab                 | M2-77-68      | N.L.              | 10.8  | 580          | - pH adjusted to 6.7  |
|   |   | 03/22/78                  | grab                 | M2-78-5       | 28 %              | 11.1  | 910          | - LC50 range 20-40 %  |
|   |   | 05/02/78                  | grab                 | M2-78-12      | 40 %              | 12.2  | 940          |   |
|   |   | 05/26/80                  | grab                 | 80-68         | 56 %              | 10.6  | 880          |   |
|   |   |                           |                      |               |                   |       |              |   |
|   |   |                           |                      |               |                   |       |              |   |
|   | Economizer [e]<br>Zero                    | 05/26/80                  | grab                 | 80-70         | >100 %            | 7.8   | 190          | - 10 % mortality in 100 %   |
| DOW CHEMICAL<br>- Sarnia (SW)                         | Disposal Site<br>in Scott Rd.<br>Dump [e] | 07/28/81                  | grab                 | 81-115        | 61 %              | 7.57  | 4150         |   |
|   |   |                           |                      |               |                   |       |              |   |
| DOW BADISCHE<br>- Arnprior (SE)                       | Storm Sewer<br>Manhole [e]                | 07/30/76                  | grab                 | M2-76-31      | N.L.              | 7.5   | 130          | - unaerated   |
|   |   | 06/03/77                  | grab                 | M2-77-13      | N.L.              | 7.4   | 135          | - unaerated   |
|   | Process Sewer<br>Manhole [m]              | 07/30/76                  | grab                 | M2-76-33      | 80 %              | 6.6   | 135          | - unaerated   |
|   |   | 06/03/77                  | grab                 | M2-77-14      | N.L.              | 7.9   | 140          |   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION     | EFFLUENT                      | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                               |
|----------------------------------|-------------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| DOUGLAS AIRCRAFT<br>- Malton (C) | Final Effluent [m]            | 06/02/75                  | grab               |               | N.L.              |      |              | - unaerated                            |
| DOW CHEMICAL<br>- Sarnia (SW)    | 3rd Street<br>Sewer [e]       | 03/03/76                  | grab               | 76-9          | N.L.              | 8.6  | 260          | - unaerated                            |
|                                  |                               | 06/21/76                  | grab               | 76-109        | N.L.              | 8.9  | 290          | - unaerated                            |
|                                  |                               | 05/10/77                  | grab               | 77-53         | N.L.              | 8.2  | 180          |  |
|                                  |                               | 05/31/77                  | grab               | 77-67         | N.L.              | 9.0  | 300          |  |
|                                  |                               | 06/21/77                  | grab               | 77-89         | N.L.              | 8.1  | 200          |  |
|                                  |                               | 07/12/77                  | grab               | 77-101        | N.L.              | 7.7  | 430          |  |
|                                  |                               | 07/11/78                  | grab               | 78-35         | >100 %            | 8.0  | 210          | - unaerated, 20% mortality<br>in 100%  |
|                                  |                               | 07/11/78                  | grab               | 78-35         | N.L.              | 8.0  | 210          |  |
|                                  |                               | 09/13/78                  | grab               | 78-57         | N.L.              | 7.7  | 210          |  |
|                                  |                               | 09/13/78                  | grab               | 78-57         | N.L.              | 7.7  | 210          | - unaerated                            |
|                                  |                               | 06/21/79                  | 24hr comp.         | M2-79-3       | N.L.              | 6.5  | 245          |  |
|                                  |                               | 07/19/79                  | " "                | M2-79-13      | 88 %              | 7.5  | 253          |  |
|                                  |                               | 08/16/79                  | " "                | M2-79-34      | >100 %            | 8.2  | 200          | - 10 % mortality in 100 %              |
|                                  | 54" Sewer<br>(1st Sluice) [e] | 06/21/76                  | grab               | 76-106        | 86 %              | 7.55 | 380          | - unaerated                            |
|                                  |                               | 07/19/76                  | grab               | 76-137        | >100 %            | 8.7  | 300          | - 10 % mortality in 100 %              |
|                                  |                               | 05/10/77                  | grab               | 77-54         | N.L.              | 9.4  | 1240         |  |
|                                  |                               | 05/31/77                  | grab               | 77-66         | N.L.              | 8.1  | 820          |  |
|                                  |                               | 06/21/77                  | grab               | 77-88         | N.L.              | 8.4  | 220          |  |
|                                  |                               | 07/12/77                  | grab               | 77-100        | N.L.              | 7.6  | 910          |  |
|                                  |                               | 07/11/78                  | grab               | 78-34         | N.L.              | 7.8  | 280          | - unaerated                            |
|                                  |                               | 07/11/78                  | grab               | 78-34         | N.L.              | 7.8  | 280          |  |
|                                  |                               | 09/13/78                  | grab               | 78-56         | <100 %            | 10.2 | 780          | - 60 % mortality in 100 %              |
|                                  |                               | 09/13/78                  | grab               | 78-56         | >100 %            | 10.2 | 780          | - 40 % mortality in 100 %<br>unaerated |
|                                  |                               | 06/21/79                  | 24hr comp.         | M2-79-1       | N.L.              | 8.4  | 364          |  |
|                                  |                               | 07/19/79                  | " "                | M2-79-11      | N.L.              | 8.6  | 975          |  |
|                                  |                               | 08/16/79                  | " "                | M2-79-32      | N.L.              | 8.5  | 610          |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                 | EFFLUENT                | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|--|-------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| DOW CHEMICAL<br>- Sarnia (SW)<br>(Continued) | Acid Drain [e]          | 03/02/76                  | grab               | 76-10         | 36 %              | 11.1 | 2900         | - unaerated  |
|  |                         | 06/21/76                  | grab               | 76-105        | 8.6 %             | 12.0 | 6600         | - unaerated<br>LC50 range 5.6 - 13.6 %                       |
|  |                         | 06/21/76                  | grab               | 76-105        | >100 %            | 12.0 | 66000        | - unaerated<br>10 % mortality in 100 %<br>pH adjusted to 7.2 |
|  | 42" Sewer [e]           | 06/21/79                  | 24hr comp.         | M2-79-2       | 11 %              | 12.2 | 8590         |  |
|  |                         | 06/21/79                  | " "                | M2-79-2       | 88 %              | 12.2 | 8590         | - pH adjusted to 6.2   |
|  |                         | 07/19/79                  | " "                | M2-79-12      | N.L.              | 12.1 | 13000        |  |
|  |                         | 08/16/79                  | " "                | M2-79-33      | 32 %              | 10.4 | 2870         |  |
|  |                         | 08/16/79                  | " "                | M2-79-33      | N.L.              | 10.4 | 2870         | - pH adjusted to 7.1   |
|  |                         | 06/21/76                  | grab               | 76-103        | >100 %            | 8.25 | 235          | - unaerated, 20 % mortality<br>100 %                         |
|  |                         | 10/18/76                  | grab               | 76-174        | N.L.              |      |              | - unaerated  |
|  |                         | 10/18/76                  | grab               | 76-174        | >100 %            |      |              | - 10 % mortality in 100 %                                    |
|  |                         | 10/18/76                  | grab               | 76-173        | N.L.              |      |              | - unaerated  |
|  |                         | 10/18/76                  | grab               | 76-173        | N.L.              |      |              |  |
|  | D.O.E.O. [e]            | 06/28/76                  | grab               | 76-111        | N.L.              | 8.25 | 175          | - unaerated  |
|  |                         | 10/18/76                  | grab               | 76-178        | N.L.              |      |              | - unaerated  |
|  |                         | 10/18/76                  | grab               | 76-178        | >100 %            |      |              | - 20 % mortality in 100 %                                    |
|  | Steam Plant [e]         | 06/28/76                  | grab               | 76-110        | N.L.              | 8.1  | 175          | - unaerated  |
|  |                         | 10/18/76                  | grab               | 76-179        | >100 %            |      |              | - unaerated<br>10 % mortality in 100 %                       |
|  |                         | 10/18/76                  | grab               | 76-179        | N.L.              |      |              |  |
|  | 4th Street<br>Sewer [e] | 06/21/76                  | grab               | 76-107        | N.L.              | 8.2  | 2500         | - unaerated  |
|  |                         | 10/18/76                  | grab               | 76-177        | N.L.              |      |              | - unaerated  |
|  |                         | 10/18/76                  | grab               | 76-177        | >100 %            |      |              | - 10 % mortality in 100 %                                    |



## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                 | EFFLUENT   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|--|--|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| DOW CHEMICAL<br>- Sarnia (SW)<br>(Continued) | 2nd Street<br>Sewer [e]                            | 06/21/76                  | grab               | 76-108        | N.L.              | 9.8  | 170          | - unaerated  |
|  |  | 10/18/76                  | grab               | 76-176        | >100 %            |      |              | - unaerated  |
|  |  | 10/18/76                  | grab               | 76-176        | >100 %            |      |              | 20 % mortality in 100 %<br>- 10 % mortality in 100 % |
|  | 48" Sewer [e]                                      | 06/21/76                  | grab               | 76-104        | N.L.              | 8.7  | 180          | - unaerated  |
|  |  | 10/18/76                  | grab               | 76-175        | >100 %            |      |              | - unaerated<br>10 % mortality in 100 %               |
| DUPONT OF CANADA<br>- Corunna (SW)           | Disposal site<br>in Scott Road<br>Dump [e]         | 07/26/79                  | grab               | M2-79-21      | N.L.              | 7.9  | 8810         |  |
|  | Final Effluent [e]                                 | 07/21/76                  | grab               |               | N.L.              |      |              | - unaerated  |
|  |  | 07/24/79                  | grab               | M2-79-15      | N.L.              | 8.1  | 265          |  |
|  | Final Plant<br>Effluent [m]                        | 06/16/77                  | grab               | M2-77-27      | N.L.              | 8.8  | 280          | - unaerated  |
|  |  | 06/16/77                  | grab               | M2-77-27      | N.L.              | 8.8  | 280          |  |
|  | Total Process<br>Effluent [p]                      | 03/09/76                  | grab               | 76-16         | 38 %              | 7.05 | 600          | - unaerated  |
|  |  | 08/16/76                  | grab               | M2-76-41      | 42 %              | 8.25 | 415          | - unaerated<br>LC50 range 32-56 %                    |
|  | Total Process<br>Effluent [e]                      | 06/30/81                  | grab               | 81-102        | N.L.              | 7.41 | 520          |  |
|  | Mixing Chamber<br>before discharge<br>to river [e] | 06/16/77                  | grab               | M2-77-24      | 81 %              | 9.5  | 1100         |  |
|  |  | 08/08/77                  | grab               | M2-77-89      | N.L.              | 7.8  | 320          |  |

| COMPANY NAME<br>and LOCATION                       | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y        | SAMPLING<br>METHOD   | SAMPLE<br>NO.                    | 96-HOUR<br>-LC 50          | pH                     | CONDUCTIVITY      | COMMENTS  |
|--|---|----------------------------------|----------------------|----------------------------------|----------------------------|------------------------|-------------------|---|
| DUPONT OF CANADA<br>- Maitland (SE)<br>(Continued) | Sanitary<br>Sewer (Manhole<br>after Chlorin-<br>ation Plant) [p]            | 06/16/77<br>06/16/77<br>06/30/81 | grab<br>grab<br>grab | M2-77-23<br>M2-77-23<br>81-99    | <100 %<br><100 %<br>>100 % | 7.7<br>7.7<br>7.24     | 660<br>660<br>650 | - unaerated - 100 % killed<br>all fish in 0.5 hrs.<br>- unaerated - 100 % killed<br>-10 % dead in 100 % |
|  | Main Plant [p]<br>(before mixing<br>with T.E.L.<br>plant discharge)         | 08/08/77<br>06/30/81<br>08/08/77 | grab<br>grab<br>grab | M2-77-88<br>81-100<br>M2-77-87   | N.L.<br>N.L.<br>N.L.       | 7.6<br>7.46<br>8.81900 | 280<br>395        | -crib ditch   |
|  | T.E.L. Plant [p]<br>(before mixing<br>with main plant)<br>Service Water [s] | 06/30/81<br>06/30/81             | grab<br>grab         | 81-101<br>81-103                 | >100 %<br>N.L.             | 8.85<br>8.19           | 1850<br>275       | -30 %dead in 100 %  |
| - North Bay (NE)                                   | Final<br>Effluent [e]   | 09/20/76<br>07/11/77<br>07/11/77 | grab<br>grab<br>grab | M1-76-44<br>M1-77-34<br>M1-77-34 | N.L.<br>N.L.<br>N.L.       | 7.4<br>7.3<br>7.3      | 155<br>365<br>365 | - unaerated   |
| DUSSEK BROTHERS<br>- Belleville (SE)               | Surface<br>Runoff<br>collection ditch [e]                                   | 07/19/76<br>08/16/76             | grab<br>grab         | M2-76-27<br>M2-76-42             | 16 %<br>13.5 %             | 8.0<br>7.7             | 255<br>280        | - unaerated<br>- unaerated<br>LC50 range 10-18 %  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                         | EFFLUENT               | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS  |
|--|------------------------|---------------------------|--------------------|---------------|-------------------|-----|--------------|---|
| E.B. EDDY FOREST<br>PRODUCTS LTD.<br>- Espanola (NE) | #1 Bleach<br>Plant [p] | 03/07/77                  | grab               | 77-16         | 13 %              | 2.8 | 2000         |   |
|  |                        | 03/30/77                  | grab               | 77-38         | 14 %              | 2.6 | 1700         | - LC50 range 10-20 %                                      |
|  |                        | 05/11/77                  | grab               | 77-59         | 14 %              | 2.3 | 2800         | - LC50 range 10-20 %                                      |
|  |                        | 05/30/77                  | grab               | M1-9-77       | <10 %             | 2.8 | 1650         | - unaerated - 10 % killed<br>all fish in 4 hrs.           |
|  |                        | 05/30/77                  | grab               | M1-9-77       | <65 %             | 2.8 | 1650         | - 65 % killed all fish in<br>0.5 hrs.                     |
|  |                        | 06/21/77                  | grab               | M1-77-27      | 14 %              | 3.6 | 1020         | - LC50 range 10-20 %                                      |
|  |                        | 08/08/77                  | grab               | M1-77-61      | N.L.*             | 6.8 | 350          | - * at 10 %   |
|  |                        | 08/23/77                  | grab               | M1-77-72      | 7.1 %             | 3.0 | 1300         | - LC50 range 5-10 %                                       |
|  |                        | 09/13/77                  | grab               | M1-77-84      | N.L.*             | 3.4 | 710          | - * 24hr - LC50 at 10 %                                   |
|  |                        | 04/24/78                  | grab               | 78-19         | 24 %              |     |              | - LC50 range 20-30 %                                      |
|  |                        | 04/24/78                  | grab               | 78-19         | 37 %              |     |              | - pH adjusted   |
|  |                        | 07/30/79                  | grab               | 79-97         | 13 %              | 2.3 | 1320         | - LC50 range 10-28 %                                      |
|  |                        | 07/30/79                  | grab               | 79-97         | 28 %              | 2.3 | 1320         | - pH adjusted to 6.3                                      |
|  | #2 Bleach<br>Plant [p] | 03/07/77                  | grab               | 77-17         | 8.2 %             | 2.8 | 3600         |   |
|  |                        | 03/30/77                  | grab               | 77-37         | 14 %              | 6.3 | 2900         | - LC50 range 10-20 %                                      |
|  |                        | 05/11/77                  | grab               | 77-60         | 23.7 %            | 5.1 | 3400         |   |
|  |                        | 05/30/77                  | grab               | M1-10-77      | <10 %             | 2.8 | 4000         | - unaerated - 10 % killed<br>all fish in 3 hrs.           |
|  |                        | 05/30/77                  | grab               | M1-10-77      | <65 %             | 2.8 | 4000         | - 65 % killed all fish in<br>0.5 hrs.                     |
|  |                        | 06/21/77                  | grab               | M1-77-29      | <2 %              | 1.8 | 8000         | - 2 % killed all fish in 4 hr                             |
|  |                        | 08/08/77                  | grab               | M1-77-62      | N.L.*             | 6.2 | 410          | - * at 10 %   |
|  |                        | 08/23/77                  | grab               | M1-77-73      | 7.1 %             | 3.8 | 3300         | - LC50 range 5-10 %                                       |
|  |                        | 09/13/77                  | grab               | M1-77-85      | N.L.*             | 7.0 | 4000         | - * 24hr - LC50 at 10 %                                   |
|  |                        | 04/24/78                  | grab               | 78-20         | 14 %              | 3.6 | 3200         | - LC50 range 10-20 %                                      |
|  |                        | 04/24/78                  | grab               | 78-20         | 4.7 %             | 3.6 | 3200         | - unaerated   |
|  |                        | 04/24/78                  | grab               | 78-20         | <30 %             | 3.6 | 3200         | - pH adjusted to 7.7 - 30 %<br>killed all fish in 48 hrs. |
|  |                        | 04/24/78                  | grab               | 78-20         | <10 %             | 3.6 | 3200         | - pH adjusted to 7.7 - 10 %<br>killed all fish in 96 hrs. |
|  |                        | 07/30/79                  | grab               | 79-98         | 37.5 %            | 6.5 | 3600         |   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION  | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS   |
|---|---|---------------------------|--------------------|---------------|-------------------|-----|--------------|--|
| E.B. EDDY FOREST<br>PRODUCTS LTD.<br>- Espanola (NE)<br>(Continued) | Intake [s]  | 03/07/77                  | grab               | 77-19         | N.L.              | 6.3 | 140          |  |
|   |   | 03/30/77                  | grab               | 77-39         | N.L.              | 6.4 | 170          |  |
|   |   | 05/11/77                  | grab               | 77-58         | N.L.              | 6.8 | 65           |  |
|   |   | 05/30/77                  | grab               | M1-8-77       | N.L.              | 7.2 | 62           | - unaerated  |
|   |   | 05/30/77                  | grab               | M1-8-77       | N.L.              | 7.2 | 62           |  |
|   |   | 06/21/77                  | grab               | M1-77-27      | N.L.              | 7.2 | 120          |  |
|   |   | 08/09/77                  | grab               | M1-77-64      | N.L.              | 6.6 | 92           |  |
|   |   | 08/23/77                  | grab               | M1-77-75      | N.L.              | 6.9 | 62           |  |
|   |   | 09/13/77                  | grab               | M1-77-87      | N.L.*             | 6.6 | 100          | - * 72 hr  |
|   |   | 04/24/78                  | grab               | 78-23         | N.L.              | 7.5 | 210          |  |
|   |   | 11/10/81                  | grab               | 81-168        | N.L.              | 7.6 | 170          |  |
|   |   | 04/24/78                  | grab               | 78-23         | N.L.              | 7.5 | 210          | - unaerated  |
|   |   | 07/30/79                  | grab               | 79-100        | N.L.              | 7.2 | 600          |  |
|   |   | 07/29/80                  | grab               | 80-121        | N.L.              | 7.2 | 72           |  |
|   |   | 08/26/80                  | grab               | 80-146        | N.L.              | 7.3 | 74           |  |
|   |   | 11/10/81                  | gran               | 81-168        | N.L.              | 7.6 | 170          |  |
|   | Final Effluent<br>(Outfall Pond<br>or Whole Mill) [e] | 05/31/76                  | grab               | M1-76-2       | 7.5 %             | 3.2 | 1500         | -LC50 range 5.6-10% unaerated                      |
|   |   | 05/31/76                  | gram               | M1-76-2       | 24 %              | 3.2 | 1500         | -LC50 range 18-32% unaerated<br>pH adjusted to 6.9 |
|   |   | 03/07/77                  | grab               | 77-18         | 19 %              | 3.1 | 1600         |  |
|   |   | 03/30/77                  | grab               | 77-36         | 84.3 %            | 6.4 | 1000         |  |
|   |   | 05/11/77                  | grab               | 77-61         | 35.4 %            | 4.4 | 1000         |  |
|   |   | 05/30/77                  | grab               | M1-7-77       | 14 %              | 7.1 | 1225         | -unaerated LC50 range 10-20%                       |
|   |   | 05/30/77                  | grab               | M1-7-77       | <65 %             | 7.1 | 1225         | -65% killed all fish in<br>12 hrs.                 |
|   |   | 06/21/77                  | grab               | M1-77-26      | 17 %              | 6.0 | 1000         |  |
|   |   | 08/08/77                  | grab               | M1-77-63      | >10 %             | 9.3 | 890          | - 10 % mortality is 10 %                           |
|   |   | 08/23/77                  | grab               | M1-77-74      | 12 %              | 7.4 | 1300         |  |
|   |   | 09/13/77                  | grab               | M1-77-86      | 23 %*             | 6.7 | 1200         | - from foam pond 24 hr LC50                        |
|   |   | 04/24/78                  | grab               | 78-18         | 44 %              | 6.8 | 1250         | - LC50 range 30-65 %                               |
|   |   | 04/24/78                  | grab               | 78-18         | 12 %              | 6.8 | 1250         | - unaerated  |
|   |   | 04/24/78                  | grab               | 78-18         | >45 %             |     |              | - 20 % mortality in 45 %                           |
|   |   | 07/30/79                  | grab               | 79-95         | 60 %              | 6.3 | 940          |  |
|   |   | 07/29/80                  | grab               | 80-122        | 100 %             | 6.8 | 710          | - only hardwood operation<br>was functioning       |
|   |   | 08/26/80                  | grab               | 80-145        | 35 %              | 7.7 | 980          |  |
|   |   | 11/10/81                  | grab               | 81-166        | 35                | 7.2 | 1650         |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION  | EFFLUENT                                       | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|---|--|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| E.B. EDDY FOREST<br>PRODUCTS LTD.<br>- Espanola (NE)<br>(Continued) | Woodroom [e]                                   | 05/31/76                  | grab               | M1-76-3       | 12 %              | 4.8  | 175          | - unaerated  |
|   |  | 05/31/76                  | grab               | M1-76-3       | 12 %              | 4.8  | 175          | - unaerated pH adjusted                                  |
|   |  | 04/24/78                  | grab               | 78-22         | 11 %              | 4.7  | 180          | to 7.0   |
|   |  | 07/30/79                  | grab               | 79-101        | 4.2 %             | 4.3  | 210          |  |
|   |  | 07/30/79                  | grab               | 79-101        | <10 %             | 4.3  | 210          | - pH adjusted to 7.1 - 10%<br>killed all fish in 24 hrs. |
|   |  | 07/29/80                  | grab               | 80-123        | 4 %               | 4.7  | 365          |  |
|   |  | 07/29/80                  | grab               | 80-123        | 2.2 %             | 4.7  | 365          | - stored for 1 week                                      |
|   |  | 07/29/80                  | grab               | 80-124        | 5.8 %             | 6.9  |              | - treated  |
|   |  | 11/10/81                  | grab               | 81-167        | 6.7               | 4.3  | 365          |  |
|   | Main Sewer [p]                                 | 07/30/79                  | grab               | 79-96         | 42 %              | 5.7  | 1200         | - LC50 range 32-56 %                                     |
|   | Kraft Mill [p]                                 | 07/30/79                  | grab               | 79-96         | 42 %              | 10.7 | 355          | - LC50 range 32-56 %                                     |
|   | Speciality<br>Mill<br>(after<br>clarifier) [e] | 07/20/77                  | grab               | M2-77-28      | <50 %             | 7.7  | 150          | - 50 % killed all fish in<br>72 hrs.                     |
|   |  | 07/20/77                  | grab               | M2-77-28      | 65 %              | 7.7  | 150          |  |
|   |  | 08/04/77                  | grab               | M2-77-75      | N.L.              | 6.2  | 115          |  |
|   |  | 08/04/77                  | grab               | M2-77-76      | N.L.              | 6.0  | 110          |  |
|   |  | 08/04/77                  | grab               | M2-77-77      | N.L.              | 6.0  | 110          |  |
|   |  | 08/04/77                  | grab               | M2-77-78      | N.L.              | 6.9  | 110          |  |
|   |  | 08/04/77                  | 6-gr.comb.         | M2-77-83      | N.L.              | 7.2  | 110          |  |
|   |  | 09/07/77                  | grab               | M2-77-110     | 100 %             | 4.8  | 190          |  |
|   |  | 10/14/80                  | grab               | 80-197        | 86 %              | 9.0  | 200          | - clarifier being by-passed                              |
|   | Board Mill<br>Sewer [d]                        | 07/20/77                  | grab               | M2-77-29      | 80 %              | 7.2  | 160          | - LC50 range 65-100 %                                    |
|   |  | 08/04/77                  | grab               | M2-77-79      | N.L.              | 5.7  | 135          |  |
|   |  | 08/04/77                  | grab               | M2-77-80      | 90 %              | 5.0  | 160          | - LC50 range 80-100 %                                    |
|   |  | 08/04/77                  | grab               | M2-77-81      | N.L.              | 5.2  | 125          |  |
|   |  | 08/04/77                  | grab               | M2-77-82      | N.L.              | 5.6  | 165          |  |
|   |  | 08/04/77                  | 6-gr.comb.         | M2-77-84      | N.L.              | 6.0  | 150          |  |
|   |  | 09/07/77                  | grab               | M2-77-111     | N.L.              | 5.5  | 170          |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                                      | EFFLUENT                  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                   |
|---|---------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|----------------------------|
| E.B. EDDY FOREST<br>PRODUCTS LTD.<br>- Ottawa (SE)<br>(Continued) | Speciality                | 08/04/77                  | grab               | M2-77-71      | N.L.              | 6.4  | 105          |                            |
|   | Mill                      | 08/04/77                  | grab               | M2-77-72      | N.L.              | 5.6  | 105          |                            |
|   | (before                   | 08/04/77                  | grab               | M2-77-73      | 90 %              | 4.8  | 105          |                            |
|   | clarifier) [p]            | 08/04/77                  | grab               | M2-77-74      | N.L.              | 5.6  | 160          |                            |
|   |                           | 09/07/77                  | grab               | M2-77-109     | N.L.              | 5.9  | 190          |                            |
|   |                           |                           |                    |               |                   |      |              |                            |
| ELMIRA SEWAGE<br>TREATMENT PLANT<br>- Elmira (WC)                 | Final Effluent            | 09/20/76                  | grab               | 76-157        | N.L.              | 7.5  | 3000         |                            |
|   |                           | 07/14/81                  | grab               | 81-111        | 54 %              | 7.58 | 5800         |                            |
|   | (before chlorination) [p] |                           |                    |               |                   |      |              |                            |
|   | Effluent [e]              | 09/20/76                  | grab               | 76-158        | 38 %              | 7.4  | 3500         | - LC50 range 30-50 %       |
|   |                           | 04/12/77                  | grab               | 77-43         | 59 %              | 7.6  | 5500         | - LC50 range 50-70 %       |
|   | Influent (mixture         | 04/12/77                  | grab               | 77-42         | 58 %              | 7.6  | 4600         | - LC50 range 50-70 %       |
|   | of Elmira sewage &        |                           |                    |               |                   |      |              |                            |
|   | Uniroyal effluent) [p]    |                           |                    |               |                   |      |              |                            |
|   | Influent [p]              | 07/14/81                  | grab               | 81-110        | 40 %              | 7.84 | 6000         |                            |
|   |                           |                           |                    |               |                   |      |              |                            |
| ESSO CHEMICAL OF<br>CANADA LTD.<br>- Sarnia (SW)                  | Pressure Sewer            | 06/28/76                  | grab               | 76-112        | <100 %            | 8.1  | 250          | - unaerated - 100 % killed |
|   | (Anthracite               |                           |                    |               |                   |      |              | all fish in 24 hrs         |
|   | filter                    | 4/19/77                   | grab               | 77-46         | N.L.              | 7.8  | 470          |                            |
|   | influent)[p]              | 05/11/77                  | grab               | 77-50         | >100 %            | 8.8  | 370          | - 30 % mortality in 100 %  |
|   |                           | 05/31/77                  | grab               | 77-63         | < 70 %            | 7.3  | 400          | - 70 % killed all fish     |
|   |                           |                           |                    |               |                   |      |              | in 48 hrs                  |
|   |                           | 07/12/77                  | grab               | 77-97         | 72 %              | 7.9  | 260          | - LC50 range 50-100 %      |
|   | Final effluent [e]        | 07/25/79                  | grab               | M2-79-16      | N.L.              | 7.9  | 280          |                            |
|   |                           | 08/02/79                  | grab               | M2-79-31      | >100 %            | 7.3  | 345          | - 48 hr - 10% mortality    |
|   |                           |                           |                    |               |                   |      |              | in 100%                    |
|   |                           | 08/22/79                  | grab               | M2-79-41      | 56 %              | 7.9  | 275          |                            |
|   |                           | 07/30/80                  | grab               | M2-80-9       | N.L.              |      |              |                            |
|   |                           | 09/29/80                  | grab               | M2-80-19      | 100 %             |      |              |                            |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION        | EFFLUENT                                     | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|-------------------------------------|--|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| ETHYL CORPORATION<br>- Corunna (SW) | Pressure Sewer<br>(Anthracite<br>filter) [p] | 04/13/76                  | grab               | 76-49         | 51 %              | 7.8  | 240          | - unaerated  |
|                                     |  | 06/28/76                  | grab               | 76-113        | < 75 %            | 8.2  | 275          | - 75 % killed all fish in 48<br>hrs - unaerated                          |
|                                     |  | 07/19/76                  | grab               | 76-141        | 93 %              | 7.3  | 330          | - unaerated  |
|                                     |  | 10/25/76                  | grab               | 76-185        | N.L.              | 7.2  | 2200         |  |
|                                     |  | 10/25/76                  | grab               | 76-185        | N.L.              | 7.2  | 2200         | -unaerated   |
|                                     |  | 04/18/77                  | grab               | 77-47         | N.L.              | 8.0  | 450          |  |
|                                     |  | 05/10/77                  | grab               | 77-51         | 97 %              | 8.8  | 390          |  |
|                                     |  | 05/31/77                  | grab               | 77-64         | < 70 %            | 7.9  | 440          | - 70 % killed all fish in<br>33 hrs                                      |
|                                     |  | 06/21/77                  | grab               | 77-87         | N.L.              | 7.5  | 520          |  |
|                                     |  | 07/12/77                  | grab               | 77-98         | N.L.              | 8.0  | 265          |  |
|                                     |  | 07/11/78                  | grab               | 78-32         | < 70 %            | 7.9  | 200          | - unaerated - 70% killed all<br>fish in 96 hrs                           |
|                                     |  | 07/11/78                  | grab               | 78-32         | < 100 %           | 7.9  | 200          | - 100 % killed all fish in<br>96 hrs                                     |
|                                     | Final<br>Effluent [e]                        | 07/12/76                  | grab               | 76-126        | N.L.              | 7.6  | 1550         | - unaerated  |
|                                     |  | 05/10/77                  | grab               | 77-55         | N.L.              | 7.5  | 1800         |  |
|                                     |  | 07/11/78                  | grab               | 78-36         | N.L.              | 7.7  | 300          | - unaerated  |
|                                     |  | 07/11/77                  | grab               | 78-36         | N.L.              | 7.7  | 300          |  |
|                                     |  | 08/22/78                  | grab               | 78-51         | N.L.              | 8.2  | 1440         |  |
|                                     |  | 08/22/78                  | grab               | 78-51         | N.L.              | 8.2  | 1440         | - unaerated  |
|                                     |  | 08/22/78                  | grab               | 78-51         | N.L.              | 8.2  | 1440         | - unaerated - sample agitated<br>at 15°C for 24 hrs.<br>prior to testing |
|                                     |  | 09/12/78                  | grab               | 78-58         | N.L.              | 7.2  | 1580         |  |
|                                     |  | 09/12/78                  | grab               | 78-58         | N.L.              | 7.2  | 1580         | - unaerated  |
|                                     |  | 07/31/79                  | grab               | M2-79-25      | 23 %              | 10.6 | 1900         |  |
|                                     |  | 10/25/79                  | grab               | 79-162        | N.L.              | 9.2  | 1500         |  |
|                                     |  | 03/05/80                  | grab               | 80-34         | 50 %              | 8.8  | 2500         |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                       | EFFLUENT                                     | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS                              |
|--|--|---------------------------|--------------------|---------------|-------------------|-----|--------------|---------------------------------------|
| ETHYL CORPORATION<br>- Corunna (SW)<br>(Continued) |  | 06/18/80                  | grab               | M2-80-3       | 100 %             |     |              |                                       |
|  |  | 06/24/80                  | grab               | M2-80-4       | 100 %             |     |              |                                       |
|  |  | 07/21/80                  | grab               | M2-80-8       | 90 %              |     |              |                                       |
|  |  | 07/28/80                  | grab               | M2-80-9       | N.L.              |     |              |                                       |
|  |  | 09/ /80                   | grab               | M2-80-20      | N.L.              |     |              |                                       |
|  | Intake [s]                                   | 07/12/76                  | grab               | 76-127        | N.L.              | 8.3 | 210          | - unaerated                           |
| EUROCURTAIN<br>-Cornwall (SE)                      | Dye Separator<br>Effluent [e]                | 02/19/79                  | grab               | 79-6          | 15 %              | 6.0 | 390          |                                       |
|  |  | 02/19/79                  | grab               | 79-6          | 15 %              | 6.0 | 390          | -ph adjusted to 7.8                   |
|  |  | 03/05/79                  | grab               | 79-7          | N.L.*             | 6.4 | 330          | -*at 40 %                             |
|  |  | 03/05/79                  | grab               | 79-7          | N.L.*             | 6.4 | 330          | -*at 40 % ph adjusted                 |
|  |  | 04/23/79                  | grab               | 79-18         | 25 %              | 6.4 | 325          |                                       |
|  |  |                           |                    |               |                   |     |              |                                       |
| FALCONBRIDGE<br>- Emery Creek (NE)                 | Emery Creek<br>(below bridge) [1]            | 07/14/77                  | grab               | M1-77-39      | N.L.              | 7.6 | 420          |                                       |
|  |  | 07/14/77                  | grab               | M1-77-39      | N.L.              | 7.6 | 420          | - unaerated                           |
|  | Fecunis Lake [e]                             | 08/15/77                  | grab               | M1-77-67      | 32 %              | 5.0 | 980          | - unaerated                           |
|  |  | 08/15/77                  | grab               | M1-77-67      | <100 %            | 5.0 | 980          | - 100 % killed all fish<br>in 72 hrs. |
|  | Moose Creek<br>Effluent [e]                  | 08/15/77                  | grab               | M1-77-65      | 13 %              | 4.5 | 1100         | - unaerated                           |
|  |  | 08/15/77                  | grab               | M1-77-65      | <100 %            | 4.5 | 1100         | - 100 % killed all fish<br>in 96 hrs. |
|  | Moose Lake (below<br>treatment plant)<br>[p] | 09/08/76                  | grab               | M1-76-30      | N.L.              | 7.0 | 920          | - unaerated                           |
|  |  |                           |                    |               |                   |     |              |                                       |



## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION          | EFFLUENT   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO.      | 96-HOUR<br>-LC 50 | pH         | CONDUCTIVITY   | COMMENTS   |
|---------------------------------------|--|---------------------------|--------------------|--------------------|-------------------|------------|----------------|--|
| FIBERGLASS OF CANADA<br>- Sarnia (SW) | Moose Lake   | 06/14/76                  | grab               | M1-76-7            | N.L.              | 6.6        | 975            |  |
|                                       |  | 09/08/76                  | grab               | M1-76-31           | >100 %            | 7.0        | 810            | - unaerated  |
|                                       |  | 08/15/77                  | grab               | M1-77-66           | >100 %            | 7.5        | 780            | - unaerated  |
|                                       |  | 08/15/77                  | grab               | M1-77-66           | >100 %            | 7.5        | 780            | - 20 % mortality in 100 %<br>- 10 % mortality in 100 % |
|                                       | Final Effluent [e]   | 07/19/76                  | grab               | 76-134             | N.L.              | 7.5        | 195            | - unaerated  |
|                                       | Treatment Sump   | 07/19/76                  | grab               | 76-136             | 17.5 %            | 7.35       | 13000          | - unaerated - LC50 range<br>10-30 %                    |
|                                       | (Scott Road<br>Dump) [e]                                   | 07/26/79<br>10/29/79      | grab<br>grab       | M2-79-18<br>79-164 | 7 %<br>7 %        | 7.9<br>7.8 | 11000<br>14000 |  |
| FORD MOTOR CO.<br>- St. Thomas (SW)   | Scott Road Dump<br>(before treatment)<br>[e]               | 10/29/79                  | grab               | 79-163             | 2.2 %             | 8.7        | 12000          |  |
|                                       | Influent to<br>impounding basin<br>(inplant sample)<br>[p] | 12/12/78                  | grab               | 78-80              | N.L.              | 7.4        | 460            |  |
|                                       | Combined<br>Effluent<br>at Dodd's Cr. [e]                  | 12/12/78                  | grab               | 78-81              | N.L.              | 7.3        | 435            |  |
|                                       | East Settling<br>Lagoon [p]                                | 12/12/78                  | grab               | 78-82              | 52 %              | 7.0        | 750            | - LC50 range 45-60 %                                   |
|                                       | Riverside Dr.<br>pumping<br>station [e]                    | 03/28/77                  | grab               | 77-26              | <70 %             | 7.3        | 430            | - 70 % killed 70 % of fish<br>in 48 hrs.               |
| - Windsor (SW)                        |  |                           |                    |                    |                   |            |                |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION  | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH    | CONDUCTIVITY | COMMENTS  |
|---|---|---------------------------|--------------------|---------------|-------------------|-------|--------------|---|
| FRASER INC.<br>- Thorold (WC)   | Clarifier<br>Decant [e]                         | 02/28/77                  | grab               | 77.13         | 39 %              | 7.8   | 620          | -dechlorinated - 50 %<br>killed all fish in 96 hrs. |
|   |   | 02/28/77                  | grab               | 77.13         | 50 %              | 7.8   | 620          |   |
|   |   | 04/23/80                  | grab               | 80-56         | 37 %              | 7.7   | 520          |   |
|   |   | 12/01/81                  | grab               | 81-175        | N.L.              | 8.34  | 660          |   |
|   |   |                           |                    |               |                   |       |              |   |
|   |   |                           |                    |               |                   |       |              |   |
| FREEDLAND INDUSTRIES<br>- Kingsville (SW)   | Final<br>Effluent                               | 08/18/75                  | grab               |               | 75 %              | 10.7  |              |   |
| GENERAL MOTORS<br>- St. Catharines<br>(WC)  | Creek leading<br>from plant on<br>east side [e] | 02/23/76                  | grab               | 76-5          | N.L.              | 7.4   | 470          | - unaerated   |
| GREAT LAKES FOREST<br>PRODUCTS LTD.<br>(Formerly Reed Pulp<br>& Paper Co.)<br>- Dryden (NW) | Final [e]                                       | 08/04/77                  | grab               | M1-77-57      | 21 %              | 9.6   | 450          |   |
|   |   | 07/28/80                  | grab               | M3-80-34      | 1.3 %             | 8.4   |              |   |
|   |   | 08/12/80                  | grab               | M3-80-42      | 24 %              | 10.3  | 1000         |   |
|   |   | 08/19/80                  | grab               | M3-80-57      | 28 %              | 3.2 % |              |   |
|   |   | 06/16/81                  | grab               | M3-81-22      | 29 %              | 6.1   |              |   |
|   |   | 07/14/81                  | grab               | M3-81-61      | 8 %               | 6.3   |              |   |
|   |   | 08/18/81                  | grab               | M3-81-111     | 14 %              | 5.9   |              |   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIV-<br>TIVITY | COMMENTS  |
|------------------------------|---|---------------------------|--------------------|---------------|-------------------|------|----------------------|---|
| - Thunder Bay (NW)           | (Combined -<br>Effluent<br>(on company<br>property) [e] | 07/25/77                  | grab               | M1-77-49      | 39 %              | 5.9  | 1350                 | - LC50 range 30-50 %                                    |
|                              |   | 07/15/80                  | 24hr comp.         | M3-80-9       | 33 %              | 6.4  | 2200                 |   |
|                              |   | 07/29/80                  | 24hr comp.         | M3-80-30      | 30 %              | 6.5  | 1600                 |   |
|                              |   | 08/05/80                  | 24hr comp.         | M3-80-35      | 20 %              | 5.2  | 2000                 |   |
|                              |   | 08/05/81                  | comp.              | M3-81-89      | 16 %              | 5.5  | 2150                 |   |
|                              |   | 08/11/81                  | comp.              | M3-81-95      | 49 %              | 6.2  |                      |   |
|                              |   | 08/18/81                  | comp.              | M3-81-103     | 38 %              | 6.5  |                      |   |
|                              | Clean Water<br>Effluent [e]                             | 07/15/80                  | 24hr comp.         | M3-80-10      | N.L.              | 8.1  | 1100                 |   |
|                              |   | 07/29/80                  | 24hr comp.         | M3-80-31      | N.L.              | 7.2  | 700                  |   |
|                              |   | 08/05/80                  | 24hr comp.         | M3-80-29      | N.L.              | 7.8  | 750                  |   |
|                              |   | 08/05/81                  | comp.              | M3-81-90      | 49 %              | 6.9  | 800                  |   |
|                              |   | 08/11/81                  | comp.              | M3-81-96      | N.L.              | 7.5  |                      |   |
|                              |   | 08/18/81                  | comp.              | M3-81-104     | >100 %            | 7.3  |                      | -38 % dead in 100 %                                     |
|                              | Combined +<br>Clean Water                               | 08/05/81                  | comp.              | M3-81-91      | 34 %              | 5.8  |                      |   |
|                              |   | 08/11/81                  | comp.              | M3-81-97      | 70 %*             | 6.3  |                      | -*72 hr. LC50   |
|                              |   | 08/18/81                  | comp.              | M3-81-105     | 49 %              | 6.5  |                      |   |
| GULF OIL<br>- Oakville (C)   | Final<br>Effluent<br>(Oily Water<br>Trap #4) [e]        | 06/04/79                  | grab               | 79-42         | N.L.*             | 8.2  | 880                  | - * 24hr  |
|                              |   | 06/04/79                  | grab               | 79-42         | N.L.              | 8.2  | 880                  |   |
|                              |   | 12/12/79                  | grab               | 79-197        | 71 %              | 4.0  | 630                  | - slop tank spill a few days<br>before caused lethality |
|                              |   | 12/17/79                  | grab               | 79-198        | N.L.              | 7.75 | 418                  |   |
|                              |   | 11/24/81                  | grab               | 81-173        | >100 %            | 7.7  | 445                  | -15 % dead in 100 %                                     |
|                              |   |                           |                    |               |                   |      |                      |   |
|                              | Cooling Water [e]                                       | 06/04/79                  | 2 gr.comb.         | 79-41         | N.L.*             | 7.9  | 285                  | - * 24hr<br>Traps 1 & 3                                 |
|                              |   | 06/04/79                  | 2 gr.comb.         | 79-41         | N.L.              | 7.9  | 285                  |   |
|                              |   | 12/12/79                  | 3 gr.comb.         | 79-196        | N.L.              | 8.35 | 274                  | - Traps 1 & 3<br>- Traps 1,2 & 3                        |
|                              |   | 11/24/81                  | grab               | 81-172        | N.L.              | 8.14 | 285                  |   |
|                              |   |                           |                    |               |                   |      |                      |   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                           | EFFLUENT                               | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO.        | 96-HOUR<br>-LC 50 | pH          | CONDUCT-<br>TIVITY | COMMENTS  |
|--|--|---------------------------|--------------------|----------------------|-------------------|-------------|--------------------|---|
| HAHN BRASS<br>- New Hamburg(WC)                        | Final<br>Effluent [e]                  | 09/02/75                  | grab               |                      | >100 %            |             |                    | - unaerated - 40 % mortality<br>in 100 %        |
| HALEY INDUSTRIES<br>- Haley Station (SE)               | Inside #1<br>Plant [p]                 | 06/03/77                  | grab               | M2-77-9              | 14 %              | 12.1        | 9100               | - LC50 range 10-20 %                            |
|  | Final<br>Effluent [e]                  | 07/16/76<br>06/03/77      | grab<br>grab       | M2-76-24<br>M2-77-10 | N.L.<br>25 %      | 7.6<br>7.7  | 780<br>400         | - LC50 range 20-30 %                            |
|  | #1 Plant<br>Effluent [p]               | 07/16/76<br>06/03/77      | grab<br>grab       | M2-76-25<br>M2-77-9  | N.L.<br>>100 %    | 7.4<br>12.1 | 330<br>8800        | - pH adjusted to 6.6<br>40 % mortality in 100 % |
| HAWKESBURY MUNICIPAL<br>DISCHARGE<br>- Hawkesbury (SE) | Retaining Area [e]                     | 08/10/77                  | grab               | M2-77-93             | 100 %             | 7.5         | 500                |   |
| HOLMES INSULATION<br>- Sarnia (SW)                     | Disposal Site<br>in Scott Rd. Dump [e] | 07/26/79                  | grab               | M2-79-22             | N.L.              | 8.34        | 362                |   |
|  | Runoff from<br>spray irrigation<br>[e] | 09/28/81                  | grab               | 81-116               | 70 %              | 7.27        | 1070               |   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION           | EFFLUENT                   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS  |
|--|----------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|---|
| IMPERIAL OIL REFINERY<br>- Sarnia (SW) | #9 Separator [e]           | 06/28/76                  | grab               | 76-116        | N.L.              | 7.9  | 190          | - unaerated                                       |
|  |                            | 10/25/76                  | grab               | 76-181        | N.L.              | 7.5  | 190          | - unaerated                                       |
|  |                            | 10/25/76                  | grab               | 76-181        | N.L.              | 7.5  | 190          |   |
|  | #3 Separator [e]           | 06/28/76                  | grab               | 76-115        | N.L.              | 8.2  | 175          | - unaerated                                       |
|  |                            | 10/25/76                  | grab               | 76-180        | N.L.              | 7.5  | 175          |   |
|  |                            | 10/25/76                  | grab               | 76-180        | N.L.              | 7.5  | 175          |   |
|  | #12 Separator [e]          | 06/28/76                  | grab               | 76-118        | N.L.              | 8.0  | 175          | - unaerated                                       |
|  |                            | 10/25/76                  | grab               | 76-183        | N.L.              | 8.1  | 185          |   |
|  |                            | 10/25/76                  | grab               | 76-183        | >100 %            | 8.1  | 185          | - unaerated - 10 % mortality<br>in 100 %          |
|  | #11 Separator [e]          | 06/28/76                  | grab               | 76-118        | N.L.              | 7.9  | 180          | - unaerated                                       |
|  |                            | 10/25/76                  | grab               | 76-183        | N.L.              | 7.95 | 185          |   |
|  |                            | 10/25/76                  | grab               | 76-182        | N.L.              | 7.95 | 185          | - unaerated                                       |
|  | Bio-oxidation<br>Plant [e] | 06/28/76                  | grab               | 76-114        | N.L.              | 7.5  | 860          | - unaerated                                       |
|  |                            | 10/25/78                  | grab               | 76-184        | N.L.              | 7.65 | 780          |   |
|  |                            | 10/25/76                  | grab               | 76-184        | >100 %            | 7.65 | 780          | - unaerated - 30 % mortality<br>in 100 %          |
|  |                            | 04/18/77                  | grab               | 77-48         | N.L.              | 7.8  | 720          |   |
|  |                            | 05/10/77                  | grab               | 77-52         | N.L.              | 6.6  | 520          |   |
|  |                            | 05/31/77                  | grab               | 77-65         | N.L.              | 7.5  | 470          |   |
|  |                            | 06/21/77                  | grab               | 77-95         | N.L.              | 7.0  | 590          |   |
|  |                            | 07/12/77                  | grab               | 77-99         | N.L.              | 6.5  | 635          |   |
|  |                            | 07/11/78                  | grab               | 78-33         | <100 %            | 7.5  | 750          | - 100 % killed all fish in<br>72 hrs. - unaerated |
|  |                            | 07/11/78                  | grab               | 78-33         | N.L.              | 7.5  | 750          |   |
|  |                            | 05/29/79                  | grab               | 79-26         | N.L.*             | 7.6  |              | - * 24 hr test                                    |
|  |                            | 09/28/81                  | grab               | 81-141        | N.L.              | 7.5  | 515          |   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                          | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD  | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS   |
|---|---|---------------------------|---------------------|---------------|-------------------|-----|--------------|--|
| IMPERIAL OIL REFINERY<br>- Sarnia (SW)<br>(Continued) | Cooling Water<br>(Separators -<br>#3,9,11 & 12<br>combined) [e] | 05/29/79                  | 4-grabs<br>combined | 79-27         | N.L.*             | 8.2 | 190          | - * 24 hr test   |
|   |   | 09/28/81                  | grab                | 81-42         | N.L.              | 9.6 | 175          |  |
|   | Cooling Water [e]   | 09/28/81                  | grab                | 81-142        | N.L.              | 9.6 | 175          |  |
|   | Intake [s]  | 10/25/76                  | grab                | 76-186        | N.L.              | 7.4 | 240          | - unaerated  |
|   |   | 10/25/76                  | grab                | 76-186        | N.L.              | 7.4 | 240          |  |
|   |   | 05/29/79                  | grab                | 79-25         | N.L.*             | 8.3 | 200          | - * 24hr test  |
|   | Tank farm   | 07/26/79                  | grab                | M2-79-19      | N.L.              | 8.5 | 1300         |  |
| INCO<br>- Copper Cliff (NE)                           | Copper Cliff<br>Creek<br>(upstream of<br>Inco WTP) [1]          | 05/24/77                  | grab                | M1-77-3       | <10 %             | 7.1 | 2150         | - unaerated - 80 % mortality<br>in 10 %                      |
|   | Copper Cliff<br>Creek<br>(downstream<br>of Inco WTP) [1]        | 05/24/77                  | grab                | M1-77-4       | 23 %              | 7.8 | 2300         | - unaerated  |
|   | Final Effluent<br>(below STP) [e]                               | 08/30/77                  | grab                | M1-77-80      | >100 %            | 9/6 | 2600         | - unaerated<br>pH adjusted to 6.5<br>20 % mortality in 100 % |
|   |   | 08/30/77                  | grab                | M1-77-80      | <100 %            | 9.6 | 2600         | - 100 % killed all fish in<br>0.5 hrs.                       |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION       | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS  |
|------------------------------------|---|---------------------------|--------------------|---------------|-------------------|------|--------------|---|
| INCO                               |   |                           |                    |               |                   |      |              |   |
| - Copper Cliff (NE)<br>(Continued) | Final Effluent<br>(to Kelly Lake) [e]   | 08/30/77                  | grab               | M1-77-82      | N.L.              | 7.5  | 200          | - unaerated - anomalous mortalities in 50 %                                   |
|                                    |   | 08/30/77                  | grab               | M1-77-82      | >100 %            | 7.5  | 200          | - 20 % mortality in 100 %   |
|                                    | North of Hwy<br>#17(at bridge<br>over Copper<br>Cliff Creek) [1]                        | 05/25/76                  | grab               | M1-76-1       | 18 %              | 9.0  | 1700         | - unaerated   |
|                                    |   | 06/21/76                  | grab               | M1-76-8       | <10 %             | 10.4 | 2400         | - unaerated - 10 % killed all fish in 4 hrs.                                  |
|                                    |   | 06/21/76                  | grab               | M1-76-8       | 24 %              | 10.4 | 2400         | - unaerated - pH adjusted to 7.0 - LC50 range 18-32%                          |
|                                    | Creek Effluent<br>from Cu refinery  | 06/07/76                  | grab               | M1-76-5       | N.L.              | 9.5  | 550          | - unaerated - pH adjusted to 5.9 - poor temp control after 24 hrs.            |
|                                    |   | 06/07/76                  | grab               | M1-76-5       | N.L.              | 9.5  | 550          | - unaerated   |
|                                    | 3rd Lagoon<br>Effluent  | 06/07/76                  | grab               | M1-76-4       | <10 %             | 10.3 | 320          | - unaerated - 10% killed all fish in 72 hrs- poor temp. control after 24 hrs. |
|                                    |   | 06/07/76                  | grab               | M1-76-4       | <10 %             | 10.3 | 325          | - unaerated - 10% killed all fish in 48 hrs.<br>pH adjusted to 6.6            |
| - Coniston (NE)                    | Coniston Creek<br>(at point where<br>it enters Whanapatei R.<br>downstream of INCO) [1] | 05/24/77                  | grab               | M1-6-77       | N.L.              | 7.8  | 350          | - unaerated   |
|                                    | Coniston Creek<br>at Hwy 17<br>(upstream of INCO) [1]                                   | 05/24/77                  | grab               | M1-5-77       | N.L.              | 7.4  | 235          | - unaerated   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION | EFFLUENT                                  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS                            |
|------------------------------|---|---------------------------|--------------------|---------------|-------------------|-----|--------------|-------------------------------------|
| INCO                         |   |                           |                    |               |                   |     |              |                                     |
| - Levack (NE)                | Tailings Pond [e]                         | 06/14/76                  | grab               | M1-76-6       | <10 %             | 8.0 | 3300         | - 10 % killed all fish in 44 hrs.   |
|                              |   | 06/14/76                  | grab               | M1-76-6       | 4.2 %             |     |              | - LC50 range 3.2-5.6 %              |
| - Garson Mine                |   |                           |                    |               |                   |     |              |                                     |
| Nolin's Creek (NE)           | Nolin Creek                               | 07/14/77                  | grab               | M2-77-37      | 25 %              | 9.3 | 1800         | - LC50 range 20-30 % - unaerated    |
|                              | (Treatment Plant effluent below pond) [e] | 07/14/77                  | grab               | M2-77-37      | <100 %            | 9.3 | 1800         | - 100 % killed all fish in 0.5 hrs. |
|                              | Garson Mine                               | 07/14/77                  | grab               | M1-77-38      | 100 %             | 9.3 | 1200         | - unaerated                         |
|                              | Effluent (at                              | 07/14/77                  | grab               | M1-77-38      | N.L.              | 9.3 | 1200         |                                     |
|                              | (culvert by                               | 08/30/77                  | grab               | M1-77-81      | <10 %             | 4.1 | 1240         | - unaerated                         |
|                              | old Hwy 144)                              | 08/30/77                  | grab               | M1-77-81      | <100              | 4.1 | 1240         | - 90 % mortality in 10 %            |
|                              |   |                           |                    |               |                   |     |              | - 100 % killed all fish in 24 hrs.  |
| - Shebandowan Mine           |   |                           |                    |               |                   |     |              |                                     |
| (NW)                         | Tailings                                  | 07/25/77                  | grab               | M1-77-48      | N.L.              | 7.4 | 800          | - unaerated                         |
|                              | Decant [e]                                | 07/25/77                  | grab               | M1-77-48      | N.L.              | 7.4 | 800          |                                     |
|                              |   | 07/21/80                  | grab comp.         | M3-80-17      | <100 %            | 8.4 | 1000         | - 10 % mortality in 100 %           |
|                              |   | 06/30/81                  | grab               | M3-81-40      | 7.8               |     |              |                                     |



## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                       | EFFLUENT   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUC-<br>TIVITY | COMMENTS   |
|--|--|---------------------------|--------------------|---------------|-------------------|-----|-------------------|--|
| INDUSTRIAL GRAIN<br>PRODUCTS<br>- Thunder Bay (NW) | Final Effluent<br>(Wheat Starch<br>Manufacturer) [e] | 08/08/77                  | grab               | M1-77-60      | 10 %              | 3.5 | 880               | - unaerated  |
|  |  | 08/08/77                  | grab               | M1-77-60      | <100 %            | 3.5 | 880               | - unaerated  |
|  |  | 08/08/77                  | grab               | M1-77-60      | <100 %            | 3.5 | 880               | pH adjusted to 6.4 - 100%<br>killed all fish in 24 hrs.  |
|  |  | 08/19/80                  | 4hr grab<br>comp.  | M3-80-58      | 0.7 %             | 3.9 |                   | - 100 % killed all fish<br>in 0.5 hrs.                   |
|  |  | 06/01/81                  | grab               | 81-70         | 0.7 %             | 3.1 | 2300              |  |
|  |  | 06/30/81                  | grab               | M3-81-39      | 3.6 %             | 5.0 |                   | - sample taken before<br>cleaning                        |
|  |  | 06/30/81                  | grab               | M3-81-39      | <10 %             | 5.0 |                   | - pH adjusted to 7.1 - 10%<br>killed all fish in 24 hrs. |
|  |  | 07/13/81                  | grab               | M3-81-53      | 2.9 %             | 4.8 |                   | - sample taken before<br>cleaning                        |
|  |  | 07/13/81                  | grab               | M3-81-53      | <20 %             | 4.8 |                   | - pH adjusted to 7.1 - 20%<br>killed all fish in 24 hrs. |
| INGERSOLL STP<br>- Ingersoll (SW)                  | Final Effluent<br>(before<br>chlorination) [p]       | 12/12/79                  | grab               | 79-194        | N.L.*             | 7.9 | 925               | - 24 hr test   |
|  |  | 04/10/80                  | grab               | 80-48         | N.L.              |     |                   |  |
|  | Final Effluent<br>(after<br>chlorination) [e]        | 04/12/80                  | grab               | 80-49         | 43 %              |     |                   |  |
| IROQUOIS MUNICIPAL<br>DISHCARGE<br>- Iroquois (SE) | Municipal<br>Discharge [e]                           | 08/10/77                  | grab               | M2-77-90      | 38 %              | 7.1 | 1400              | - LC50 range 30-50 %                                     |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                    | EFFLUENT                    | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCT-<br>TIVITY | COMMENTS  |
|---|-----------------------------|---------------------------|--------------------|---------------|-------------------|-----|--------------------|---|
| IVACO<br>- L'Orignal (SE)                       | Final Outfall [e]           | 07/27/81                  | grab               | M2-81-37      | N.L.              | 8.4 | 485                |   |
| KAMKOTIA MINE<br>- Timmins (NE)                 | Mine Outfall [e]            | 08/06/76                  | grab               | M1-76-20      | 62 %              | 2.4 | 3300               | - pH adjusted to 7.2<br>unaerated               |
|   |                             | 08/06/76                  | grab               | M1-76-20      | <10 %             | 2.4 | 3300               | - 10 % killed all fish in<br>3 hrs. - unaerated |
|   |                             | 05/16/78                  | grab               | 78-26         | 23 %              | 3.0 | 930                |   |
|   |                             | 05/16/78                  | grab               | 78-26         | N.L.              | 3.0 | 930                | - pH adjusted to 7.5                            |
| KANICHEE MINE<br>- Temagani (NE)                | Tailings Pond [e]           | 08/23/77                  | grab               | M1-77-77      | >100 %            | 7.7 | 920                | - 20 % mortality in 100 %<br>unaerated          |
|   |                             | 08/23/77                  | grab               | M1-77-77      | N.L.              | 7.7 | 920                |   |
| KERR-ADDISON MINE<br>- Virginiatown (NE)        | Tailings Pond<br>Decant [e] | 10/29/80                  | grab               | 80-204        | 29 %              |     |                    |   |
| KIMBERLY-CLARK OF<br>CANADA<br>- Huntsville (C) | Polishing<br>Lagoons [e]    | 05/05/80                  | grab               | 80-61         | 93 %              | 7.5 | 540                |   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION | EFFLUENT                  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD  | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS             |
|------------------------------|---------------------------|---------------------------|---------------------|---------------|-------------------|-----|--------------|----------------------|
| KIMBERLY-CLARK OF<br>CANADA  |                           |                           |                     |               |                   |     |              |                      |
| - St. Catharines (WC)        | Final Effluent [e]        | 05/17/76                  | grab                | 76-66         | N.L.              | 7.8 | 300          | - unaerated          |
|                              |                           | 05/17/76                  | grab                | 76-66         | 58 %              | 7.8 | 300          |                      |
|                              |                           | 02/28/77                  | grab                | 77-14         | N.L.              | 7.1 | 320          |                      |
|                              |                           | 04/23/80                  | grab                | 80-55         | N.L.              | 7.3 | 293          |                      |
| - Terrace Bay (NW)           | Pulp Mill<br>Effluent [p] | 08/09/77                  | grab                | M1-77-59      | 39 %              | 7.1 | 1250         | - LC50 range 30-50 % |
|                              | Culvert at<br>Hwy.17 [e]  | 07/30/80                  | 2.5hr grab<br>comp. | M3-80-28      | 47 %              | 6.2 | 1450         |                      |
|                              |                           | 08/05/80                  | 4hr grab<br>comp.   | M3-80-36      | 37 %              | 4.1 | 1300         |                      |
|                              |                           | 08/12/80                  | 24hr grab<br>comp.  | M3-80-48      | 30 %              | 6.1 | 1500         |                      |
|                              |                           | 08/19/80                  | 24hr grab<br>comp.  | M3-80-52      | 35 %              | 4.2 |              |                      |
|                              |                           | 07/21/81                  | 20hr comp.          | M3-81-62      | 13 %              | 4.3 | 2000         |                      |
|                              |                           | 07/22/81                  | 24hr comp.          | M3-81-63      | 6 %               | 4.7 | 1950         |                      |
|                              |                           | 07/23/81                  | 24hr comp.          | M3-81-66      | 7 %               | 7.0 | 2050         |                      |
|                              |                           | 07/24/81                  | 24hr comp.          | M3-81-68      | 12 %              | 6.2 | 1800         |                      |
|                              |                           | 07/25/81                  | 24hr comp.          | M3-81-70      | 11 %              | 4.0 | 1800         |                      |
|                              |                           | 07/26/81                  | 24hr comp.          | M3-81-72      | 9 %               | 3.6 | 1900         |                      |
|                              |                           | 07/27/81                  | 24hr comp.          | M3-81-74      | 9 %               | 3.7 |              |                      |
|                              |                           | 07/28/81                  | 24hr comp.          | M3-81-76      | 17 %              | 7.6 |              |                      |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                                     | EFFLUENT                           | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                   |
|--|------------------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|----------------------------|
| KIMBERLY-CLARK OF<br>CANADA<br>(Continued)<br>- Terrace Bay (NW) | Discharge<br>to Moberly<br>Bay [e] | 08/05/80                  | grab               | M3-80-37      | 22 %              | 6.8  | 1300         |                            |
|  |                                    | 08/11/80                  | grab               | M3-80-49      | 30 %              | 6.4  | 1200         |                            |
|  |                                    | 08/19/80                  | grab               | M3-80-53      | 20 %              | 6.1  |              |                            |
|  |                                    | 06/23/81                  | grab               | M3-81-32      | 81 %              | 7.0  |              | -taken in bay              |
|  |                                    | 06/25/81                  | grab               | M3-81-34      | 81 %              | 7.2  |              | -taken in bay              |
|  |                                    | 07/24/81                  | grab               | M3-81-69      | 11 %              | 6.8  | 1850         |                            |
|  |                                    | 07/25/81                  | grab               | M3-81-71      | 13 %              | 6.6  | 1700         |                            |
|  |                                    | 07/26/81                  | grab               | M3-81-73      | 21 %              | 6.6  | 1600         |                            |
|  |                                    | 07/27/81                  | grab               | M3-81-75      | 15 %              | 6.5  |              |                            |
|  |                                    | 07/28/81                  | grab               | M3-81-77      | 21 %              | 6.5  |              |                            |
|  |                                    | 07/29/81                  | grab               | M3-81-80      | 17 %              | 6.6  |              |                            |
|  |                                    | 07/30/81                  | grab               | M3-81-81      | 14 %              | 7.0  |              |                            |
|  |                                    | 07/23/81                  | grab               | M3-81-67      | 8 %               | 6.5  | 1800         |                            |
|  | Bridge at Lake<br>A [p]            | 07/22/81                  | grab               | M3-81-64      | 14 %              | 6.2  | 1900         |                            |
|  |                                    | 07/28/81                  | grab               | M3-81-78      | 35 %              | 7.1  |              |                            |
|  | Last Highway<br>Crossing [p]       | 07/22/81                  | grab               | M3-81-65      | 6 %               | 6.2  | 2250         |                            |
|  |                                    | 07/28/81                  | grab               | M3-81-79      | 54 %              | 7.4  |              |                            |
|  |                                    | 08/24/81                  | grab               | M3-81-112     | 44 %              | 10.2 |              |                            |
|  |                                    | 08/24/81                  | grab               | M3-81-112     | 67 %              | 10.0 |              | -stored for 2 day          |
|  |                                    | 08/24/81                  | grab               | 81-129        | 44 %              | 10.5 | 1650         | -hard water used to dilute |
|  |                                    | 08/24/81                  | grab               | 81-129        | 38 %              | 10.5 | 1650         | -soft water used to dilute |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION    | EFFLUENT                               | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD    | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS  |
|---------------------------------|--|---------------------------|-----------------------|---------------|-------------------|------|--------------|---|
| KRAFT FOODS<br>- Ingleside (SE) | Final Effluent [e]                     | 06/21/76                  | grab                  | 76-110        | 35 %              | 8.2  | 2250         | - unaerated                                       |
|                                 |  | 06/21/76                  | grab                  | 76-110        | 27 %              | 8.2  | 2250         |   |
|                                 |  | 06/23/76                  | 8hr comp.             | M2-76-14      | 40 %              | 8.3  | 2475         |   |
|                                 |  | 06/24/76                  | 8hr comp.             | M2-76-15      | 38 %              | 8.3  | 2600         |   |
|                                 |  | 06/24/76                  | 8hr comp.             | M2-76-15      | 24 %              | 8.5  | 2500         | - LC50 range 18-32 %                              |
|                                 |  | 09/14/76                  | 8hr comp.<br>of grabs | M2-76-64      | 72 %              | 7.65 | 165          | - unaerated                                       |
|                                 |  | 09/15/76                  | "                     | M2-76-65      | 75 %              |      |              | - unaerated                                       |
|                                 |  | 09/16/76                  | "                     | M2-76-66      | 70 %              |      |              | - unaerated                                       |
|                                 |  | 12/07/76                  | "                     | 76-200        | 38 %*             | 7.9  | 2300         | - * 48 hr LC50                                    |
|                                 |  | 12/08/76                  | "                     | 76-201        | 70 %*             | 7.9  | 2500         | - * 72 hr LC50                                    |
|                                 |  | 12/09/76                  | "                     | 76-202        | 38 %*             | 7.8  | 2400         | - * 72 hr LC50                                    |
|                                 |  | 02/21/77                  | grab                  | 77-10         | 70 %              | 7.7  | 2050         | - unaerated                                       |
|                                 |  |                           |                       |               |                   |      |              | LC50 range 50-100 %                               |
|                                 |  | 07/12/77                  | grab                  | 77-55         | N.L.              | 7.3  | 395          |   |
|                                 | Lagoon prior<br>to chlorination<br>[p] | 07/12/77                  | grab                  | M2-77-52      | 17 %              | 8.1  | 2950         |   |
|                                 |  | 07/12/77                  | grab                  | M2-77-52      | 25 %              | 8.1  | 2950         | - unaerated                                       |
|                                 |  |                           |                       |               |                   |      |              | LC50 range 20-30 %                                |
|                                 |  | 09/05/77                  | grab                  | M2-77-116     | 34 %              |      |              |   |
|                                 |  | 09/05/77                  | grab                  | M2-77-116     | 56 %              |      |              | - unaerated                                       |
|                                 |  | 05/17/78                  | grab                  | M2-78-15      | 47 %              | 8.2  | 2450         | - unaerated                                       |
|                                 |  | 05/17/78                  | grab                  | M2-78-15      | 37 %              | 8.2  | 2450         |   |
|                                 |  | 05/17/78                  | grab                  | M2-78-15      | 23 %              | 8.2  | 2450         | - unaerated                                       |
|                                 |  | 05/17/78                  | grab                  | M2-78-15      | 59 %              | 8.2  | 2450         |   |
|                                 |  | 05/17/78                  | grab                  | M2-78-15      | <100 %            | 8.2  | 2450         | - unaerated - 100 % killed<br>all fish in 24 hrs. |
|                                 |  | 05/17/78                  | grab                  | M2-78-15      | <100 %            | 8.2  | 2450         | - 100 % killed all fish<br>in 24 hrs.             |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                       | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS   |
|--|---|---------------------------|--------------------|---------------|-------------------|-----|--------------|--|
| KRAFT FOODS<br>- Ingleside (SE)<br>(Continued)     | Lagoon prior<br>to chlorination<br>(cont'd) [p] | 10/17/78                  | grab               | M2-78-283     | <20 %             | 8.1 | 2400         | - 20 % killed all fish in<br>72 hrs. - unaerated |
|  |   | 10/17/78                  | grab               | M2-78-283     | 24.5 %            | 8.1 | 2400         | - LC50 range 20-30 %                             |
|  |   | 10/17/78                  | grab               | M2-78-283     | 32 %              | 8.1 | 2400         | - Treatment I                                    |
|  |   | 10/17/78                  | grab               | M2-78-283     | 24.5 %            | 8.1 | 2400         | - LC50 range 20-30 %                             |
|  |   | 10/17/78                  | grab               | M2-78-283     | 33 %              | 8.1 | 2400         | - unaerated                                      |
|  |   | 10/17/78                  | grab               | M2-78-283     | N.L.              | 8.1 | 2400         | - Treatment II                                   |
|  | Plant Outfall<br>to lagoon [p]                  | 09/15/77                  | grab               | M2-77-115     | 30 %              | 5.0 | 700          |  |
|  |   | 09/15/77                  | grab               | M2-77-115     | 2.2 %             | 5.0 | 700          | - unaerated - LC50 range 1-5                     |
|  | Cooling Water<br>Outfall [e]                    | 07/12/77                  | grab               | M2-77-54      | N.L.              | 6.8 | 205          |  |
|  | Lagoon after<br>chlorination [p]                | 07/12/77                  | grab               | M2-77-53      | 16 %              | 7.9 | 3000         |  |
| LACOURS LUMBER<br>- Lakstock (NE)                  | Impound Area [p]                                | 09/08/76                  | grab               | M1-76-32      | <10 %             | 7.1 | 780          | - 10 % killed all fish in<br>72 hrs. - unaerated |
|  |   | 09/08/76                  | grab               | M1-76-32      | 70 %              | 7.1 | 780          |  |
| LADNEY PROPERTIES<br>- Sarnia (SW)                 | Pond [p]  | 04/18/80                  | grab               | 80-53         | N.L.              | 6.7 | 492          |  |
| LINDSAY SEWAGE<br>TREATMENT PLANT<br>- Lindsay (C) | South Outfall [e]                               | 03/06/78                  | grab               | 78-7          | 52 %              | 6.9 | 1600         |  |
|  |   | 03/06/78                  | grab               | 78-7          | 66 %              | 7.5 | 1100         |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION  | EFFLUENT                | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|---|-------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| LUSTER DIVISION<br>NATIONAL HARDWARE<br>SPECIALITIES LTD.<br>- Wallaceburg (SW) | Final Effluent [m]      | 07/07/75                  | grab               |               | >100 %            |      |              | - 40 % mortality at 100 %                        |
| MADAWASKA MINES<br>- Bancroft (SE)  | Final Ditch [e]         | 09/19/77                  | grab               | M2-77-118     | N.L.              | 7.7  | 3750         |  |
| MONSANTO<br>- Sarnia (SW)   | ABS Plant [m]           | 10/25/76                  | grab               | 76-187        | >10 %             | 7.2  | 2600         | - 10 % killed all fish in<br>48 hrs. - unaerated |
|   |                         | 10/25/76                  | grab               | 76-187        | 10 %              | 7.2  | 2600         | - "  |
| NESTLES<br>- Chesterville (SE)  | Lagoon<br>Discharge [e] | 07/23/76                  | grab               | M2-76-30      | 42 %              | 7.6  | 700          | - unaerated                                      |
|   |                         | 07/23/76                  | grab               | M2-76-30      | N.L.*             | 7.6  | 700          | - * at 56 %                                      |
|   |                         | 08/27/76                  | grab               | M2-76-47      | N.L.*             | 7.55 | 690          | - * 24 hr<br>unaerated                           |
|   |                         | 07/13/77                  | grab               | M2-77-57      | N.L.              | 7.5  | 920          |  |
| NITROCHEM<br>- Maitland (SE)  | Surface<br>Runoff [e]   | 07/05/76                  | grab               | M2-76-16      | >10 %             | 8.45 | 51000        | - 10 % killed all fish in<br>0.5hr. - unaerated  |
|   |                         | 07/05/76                  | grab               | M2-76-16      | >1.0 %            | 8.45 | 51000        | - 1 % killed all fish in<br>1hr - unaerated      |
|   |                         | 08/16/76                  | grab               | M2-76-40      | 1.4 %             |      |              |  |
|   |                         | 06/16/77                  | grab               | M2-77-25      | 1.4 %             | 9.1  | 6300         |  |
|   |                         | 08/08/77                  | grab               | M2-77-85      | 1.7 %             | 9.1  | 4000         |  |
|   |                         | 08/25/75                  | grab               | M2-77-104     | 1.8 %             | 8.9  | 5300         |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                | EFFLUENT                     | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS  |
|---|------------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|---|
| NITROCHEM<br>- Maitland (SE)<br>(Continued) | Final<br>Effluent [e]        | 06/21/76                  | grab               | M2-76-10      | < 10 %            | 8.5  | 22000        | -unaerated - 10 % killed<br>all fish in 0.5hr.      |
|   |                              | 06/21/76                  | grab               | M2-76-10      | < 1.8 %           | 8.5  | 22000        | -unaerated - 1.8 % killed<br>all fish in 1.5hr.     |
|   |                              | 08/16/76                  | grab               | M2-076-39     | 0.56 %            |      |              | Unaerated 0.56 %<br>killed all fish in 2hrs.        |
|   |                              | 06/16/77                  | grab               | M2-77-26      | 5.3 %             | 6.6  | 6500         |   |
|   |                              | 08/08/77                  | grab               | M2-77-86      | 1.3 %             | 9.7  | 3400         |   |
|   |                              | 08/25/77                  | grab               | M2-77-103     | 0.62 %            | 10.3 | 4600         |   |
|   |                              | 08/25/77                  | grab               | M2-77-106     | 16 %              | 10.3 | 4600         | -to remove NH <sub>3</sub> (single pass)            |
|   |                              | 08/25/77                  | grab               | M2-77-108     | 25 %              | 10.3 | 4600         | -treated to remove NH <sub>3</sub><br>(double pass) |
|   |                              | 06/30/81                  | grab               | 81-97         | 7 %               | 8.7  | 2950         |   |
|   |                              | 06/30/81                  | grab               | 81-97         | 28 %              | 8.7  | 2950         | -clino treated                                      |
|   | Service Water [s]            | 06/30/81                  | grab               | 81-98         | N.L.              | 8.17 | 280          |   |
| NORANDA MINES<br>- Manitowadge (NW)         | Final<br>Effluent [e]        | 09/13/77                  | grab               | M1-77-89      | 39 %*             | 8.8  | 3000         | - unaerated * 24hr LC50                             |
|   |                              | 09/13/77                  | grab               | M1-77-89      | < 100 %           | 8.8  | 3000         | - 100 % killed all fish<br>in 2 hrs.                |
|   | CN Seepage [e]               | 08/25/81                  | grab               | M3-81-116     | 12 %              | 9.2  | 3750         |   |
|   |                              | 08/25/81                  | grab               | M3-81-115     | 1.3%              | 5.1  | 6200         |   |
| Normick Ltd.<br>- Cochrane (NE)             | Main Ditch<br>(Leachate) [e] | 07/27/76                  | grab               | M1-76-17      | > 100 %           | 7.4  | 1420         | -30 % dead in 100 %                                 |
|   |                              | 07/27/76                  | grab               | M1-76-17      | < 10 %            | 7.4  | 1430         | -unaerated - 10 % killed<br>all fish in 33 hrs.     |
|   |                              | 08/27/79                  | grab               | 79-152        | < 2.5 %           | 6.2  | 910          | -unaerated - 2.5 % killed<br>all fish in 33 hrs.    |
|   |                              | 08/27/79                  | grab               | 79-152        | 15 %              | 6.2  | 910          |   |
|   |                              |                           |                    |               |                   |      |              |   |



## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                      | EFFLUENT                                 | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS             |
|---|--|---------------------------|--------------------|---------------|-------------------|-----|--------------|----------------------|
| NORTHERN TELECOM<br>- Ottawa (SE)                 | Lagoon<br>Discharge<br>(Mill Plant) [e]  | 06/20/77                  | grab               | M2-77-30      | N.L.              | 6.9 | 380          | -unaerated           |
|   | Lagoon<br>Discharge<br>(Central Lab) [e] | 06/20/77                  | grab               | M2-77-31      | N.L.              | 9.7 | 450          | -unaerated           |
| NORTHERN WOOD<br>PRESERVERS<br>- Thunder Bay (NW) | Final<br>Effluent [e]                    | 08/08/77                  | grab               | M1-77-58      | N.L.              | 6.7 | 290          | - unaerated          |
|   |  | 08/08/77                  | grab               | M1-77-58      | N.L.              | 6.7 | 290          |                      |
|   |  | 06/15/81                  | grab               | M3-81-13      | 6 %               | 6.0 |              |                      |
|   |  | 07/06/81                  | grab               | M3-81-52      | N.L.              | 5.8 |              |                      |
|   |  | 08/04/81                  | grab               | M3-81-82      | N.L.              | 5.9 |              |                      |
|   |  | 07/06/81                  | grab               | M3-81-112     | N.L.              | 5.8 | 320          | -split with M3-81-52 |
| ONTARIO PAPER<br>COMPANY LTD.<br>- Thorold (WC)   | Copeland<br>Condensates [p]<br>[p]       | 08/13/79                  | grab               | 79-113        | 62 %              | 6.6 | 180          |                      |
|   | Groundwood<br>White Water [p]            | 08/13/79                  | grab               | 79-112        | 24 %              | 4.7 | 1350         | - LC50 range 18-32 % |
|   | Na Sulfite<br>white water [p]            | 08/13/79                  | grab               | 79-110        | 32 %              | 5.8 | 710          | - LC50 range 18-56 % |
|   | Receiving<br>Water [s]                   | 01/04/79                  | grab               | 79-2          | N.L.*             | 7.4 | 290          | - 24hr LC50 at 100 % |
|   |  | 08/13/79                  | grab               | 79-110        | N.L.              | 8.2 | 265          |                      |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                                   | EFFLUENT                    | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|--|-----------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| ONTARIO PAPER<br>COMPANY LTD.<br>- Thorold (WC)<br>(Continued) | Final<br>Effluent [e]       | 05/17/76                  | grab               | 76-68         | 24 %              | 7.9  | 1125         | - LC50 range 18-32 % -<br>unaerated                |
|  |                             | 05/17/77                  | grab               | 76-68         | 76 %              | 7.9  | 1125         |  |
|  |                             | 02/28/77                  | grab               | 77-11         | N.L.              | 7.2  | 1020         | - 100 % killed all fish<br>in 24 hrs.              |
|  |                             | 01/04/79                  | grab               | 79-1          | <100 %            | 7.0  | 1700         |  |
|  |                             | 08/13/79                  | grab               | 79-114        | N.L.              | 6.8  | 345          |  |
| PAMOUR MINE<br>- Timmins (NE)                                  | Tailings Pond<br>Decant [e] | 10/28/80                  | grab               | 80-201        | 24 %              | 7.9  | 530          |  |
| PARIS MUNICIPAL<br>TREATMENT PLANT<br>- Paris (WC)             | Influent [p]                | 11/01/76                  | grab               | 76-191        | 1.8 %             | 8.0  | 990          | -LC50 range 1-3% - unaerated<br>-LC50 range 10-20% |
|  |                             | 04/12/77                  | grab               | 77-44         | 14 %              | 9.0  | 2700         |  |
|  |                             | 03/16/81                  | grab               | 81-27         | 15 %              | 8.65 | 1700         |  |
|  |                             | 03/19/81                  | grab               | 81-31         | 19 %              | 8.57 | 1800         |  |
|  | Effluent [e]                | 11/01/76                  | grab               | 76-192        | 8 %               | 7.7  | 1190         | - unaerated<br>-before chlorination                |
|  |                             | 04/12/77                  | grab               | 77-45         | 24 %              | 7.6  | 2000         |  |
|  |                             | 03/17/81                  | grab               | 81-28         | 61 %              | 7.8  | 2050         |  |
|  |                             | 03/19/81                  | grab               | 81-30         | 54 %              | 8.0  | 2650         |  |
| PENMAN'S TEXTILES<br>- Paris (WC)                              | Final Effluent [m]          | 11/01/76                  | grab               | 76-190        | <1.0 %            | 7.1  | 1230         | - 1 % killed all fish in 96 h                      |
|  |                             | 03/16/81                  | grab               | 81-26         | 7.1 %             | 9.75 | 5900         |  |
|  |                             | 03/19/81                  | grab               | 81-33         | 71 %              | 8.60 | 4575         |  |
|  |                             | 03/20/81                  | composite          | 81-35         | 11 %              | 7.22 | 3450         |  |
|  | Intake [s]                  | 03/17/81                  | grab               | 81-29         | N.L.              | 7.8  | 600          | -Grand River                                       |
|  |                             | 03/19/81                  | grab               | 81-32         | N.L.              | 7.8  | 800          | -Grand River after filtration                      |
|  |                             |                           |                    |               |                   |      |              |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION      | EFFLUENT              | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCT-<br>TIVITY | COMMENTS  |
|-----------------------------------|-----------------------|---------------------------|--------------------|---------------|-------------------|-----|--------------------|---|
| PETROSAR<br>- Moore Township (SW) | Final Effluent<br>[e] | 07/31/79                  | grab               | M2-79-24      | N.L.              | 7.3 | 2725               |   |
|                                   |                       | 07/10/80                  | grab               | M2-80-5       | N.L.              |     |                    |   |
|                                   |                       | 07/12/80                  | grab               | M2-80-6       | N.L.              |     |                    |   |
|                                   |                       | 07/15/80                  | grab               | M2-80-7       | N.L.              |     |                    |   |
|                                   |                       | 09/11/80                  | grab               | M2-80-14      | N.L.              |     |                    |   |
|                                   |                       | 09/28/81                  | grab               | 81-145        | N.L.              | 7.1 | 1240               |   |
| P.L. ROBERTSON<br>- Milton (C)    | Final Effluent [e]    | 09/02/75                  | grab               |               | N.L.              |     |                    |   |
| POLYSAR<br>- Sarnia (SW)          | 66" Main<br>Sewer [e] | 04/13/76                  | grab               | 76-47         | 75 %              | 7.5 | 480                | - LC50 range 50-100 %   |
|                                   |                       | 06/14/76                  | grab               | 76-91         | 32 %              | 7.6 | 540                |   |
|                                   |                       | 06/14/76                  | grab               | 76-91         | <100 %            | 7.6 | 540                | - 100 % killed all fish in<br>24 hrs-stored tightly<br>covered at 40°C    |
|                                   |                       | 06/14/76                  | grab               | 76-91         | <100 %            | 7.6 | 540                | - 100 % killed all fish in<br>24 hrs-stored uncovered<br>at 40°C          |
|                                   |                       | 06/14/76                  | grab               | 76-91         | <100 %            | 7.6 | 540                | - 100 % killed all fish in<br>1.5 hrs - stored tightly<br>covered at 15°C |
|                                   |                       | 06/14/76                  | grab               | 76-91         | <100 %            | 7.6 | 540                | - 100 % killed all fish in<br>24 hrs - stored uncovered<br>at 15°C        |
|                                   |                       | 07/26/76                  | grab               | 76-149        | >100 %            | 7.6 | 550                | - unaerated -<br>10 % mortality at 100 %                                  |
|                                   |                       | 07/26/76                  | grab               | 76 151        | N.L.              | 7.6 | 550                |   |
|                                   |                       | 07/26/76                  | grab               | 76-149        | N.L.              | 7.6 | 550                | - under an O <sub>2</sub> atmosphere                                      |
|                                   |                       | 07/26/76                  | grab               |               | >100 %            | 7.6 | 550                | - continuous flow   |
|                                   |                       | 08/23/76                  | grab               | 76-153        | 40 %              | 7.6 | 890                | - 25 % mortality at 100 %<br>- unaerated                                  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION | EFFLUENT         | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                                 |
|------------------------------|------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| POLYSAR                      |                  |                           |                    |               |                   |      |              |  |
| - Sarnia (SW)                |                  | 08/22/76                  | grab               | 76-153        | 35 %              | 7.7  | 680          | - unaerated                              |
| (Continued)                  |                  | 08/22/76                  | grab               | 76-153        | 59 %              | 7.7  |              |  |
|                              |                  | 08/22/76                  | grab               | 76-153        | 43.5 %            | 7.7  | 680          | - unaerated -O <sub>2</sub> head treated |
|                              |                  | 06/27/79                  | grab               | M2-79-5       | N.L.              | 8.4  | 620          |  |
|                              |                  | 08/01/79                  | grab               | M2-79-26      | N.L.              | 8.0  | 612          |  |
|                              |                  | 08/16/79                  | grab               | M2079-35      | N.L.              | 7.9  | 695          |  |
|                              | Stereo API       | 03/02/76                  | grab               | 76-11         | 8.4 %             |      |              |  |
|                              | Separator [e]    | 06/14/76                  | grab               | 76-90         | 7.6 %             |      |              |  |
|                              |                  | 06/14/76                  | grab               | 76-90         | < 3.2 %           | 7.2  | 155          | - 90 % mortality at 3.2 %                |
|                              |                  | 07/26/76                  | grab               | 76-150        | 16 %              | 7.35 | 160          |  |
|                              |                  | 07/26/76                  | grab               | 76-150        | 11 %              | 7.35 | 160          | - unaerated                              |
|                              |                  | 08/23/76                  | grab               | 76-154        | <100 %            | 7.7  | 180          | - 90 % mortality at 100 %                |
|                              |                  | 06/27/79                  | grab               | M2-79-4       | 28 %              | 7.3  | 191          |  |
|                              |                  | 08/01/79                  | grab               | M2-79-30      | 33 %              | 7.7  | 210          |  |
|                              |                  | 08/16/79                  | grab               | M2-79-38      | 45 %              | 7.9  | 200          |  |
|                              |                  | 03/05/80                  | grab               | 80-35         | 7.1 %             | 7.7  | 160          |  |
|                              |                  | 09/25/80                  | grab               | 80-175        | >100 %            |      |              | - 30 % mortality in 100 %                |
|                              |                  | 09/25/80                  | grab               | M2-80-17      | 63 %              |      |              |  |
|                              | Esso/Polysar     | 06/14/76                  | grab               | 76-93         | N.L.              | 8.35 | 175          |  |
|                              | boundary (St.    |                           |                    |               |                   |      |              |  |
|                              | Clair River) [1] |                           |                    |               |                   |      |              |  |
|                              | 72" Sewer [e]    | 06/14/76                  | grab               | 76-92         | N.L.              | 7.45 | 205          |  |
|                              | Hwy 40 Ditch [e] | 06/14/76                  | grab               | 76-88         | > 100 %           | 8.35 | 200          | - 10% mortality at 100%                  |
|                              | (end)            |                           |                    |               |                   |      |              |  |
|                              | 54" Sewer [e]    | 04/13/76                  | grab               | 76-48         | N.L.              | 7.9  | 210          |  |
|                              |                  | 06/14/76                  | grab               | 76-89         | > 100 %           | 7.85 | 230          | - 10% mortality in 100%                  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION   | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS   |
|--|---|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| POLYSAR<br>- Sarnia (SW)<br>(Continued)                              | Service Water [s]                                   | 07/14/76                  | grab               | 76-94         | N.L.              | 8.1  | 180          |  |
|  |   | 07/26/76                  | grab               | 76-148        | >100 %            | 7.6  | 550          | - 10 % mortality in 100 %                        |
|  |   | 07/27/76                  | grab               | 76-148        | >100 %            |      |              | - 10 % mortality in 100 %<br>unaerated           |
|  |   | 08/22/76                  | grab               | 76-153        | N.L.              | 7.6  | 180          | - unaerated                                      |
|  |   | 11/01/76                  | grab               | 76-188        | N.L.              | 7.9  | 200          |  |
|  |   | 11/01/76                  | grab               | 78-189        | N.L.              | 7.8  | 200          | - unaerated                                      |
|  | Styrene II [p]<br>plant effluent<br>after treatment | 08/16/79                  | grab               | M2-79-39      | 2.3 %             | 9.2  | 430          |  |
|  | Boat Water [p]                                      | 09/25/80                  | grab               | M2-80-15      | 13 %              |      |              | - 10:1 dilution at start                         |
|  |   | 09/25/80                  | grab               | M2-80-16      | 100 %             |      |              | - air stripped site                              |
| REICHOOLD CHEMICAL<br>- Thunder Bay (NW)                             | Final Effluent [e]                                  | 08/02/77                  | grab               | M1-77-56      | <10 %             | 7.9  | 1500         | - unaerated - 10 % killed<br>all fish in 20 hrs. |
|  |   | 08/02/77                  | grab               | M1-77-56      | <100 %            | 7.9  | 1500         | - 100 % killed all fish<br>in 4 hrs.             |
|  |   | 09/07/77                  | grab               | M1-77-83      | N.L.              | 8.0  | 860          | - unaerated                                      |
|  |   | 09/07/77                  | grab               | M1-77-83      | N.L.              | 8.0  | 860          | - unaerated                                      |
|  |   | 07/30/80                  | 4hr grab<br>comp.  | M3-80-26      | 19 %              | 7.6  | 1550         |  |
|  |   | 06/30/81                  | grab               | M3-81-38      | 4 %               | 7.4  |              |  |
|  |   | 07/13/81                  | grab               | M3-81-54      | 43 %              | 7.7  |              |  |
| RIO ALGOM MINES<br>MILLIKEN-STANLEIGH<br>MINES<br>- Crotch Lake (NE) | Effluent from<br>Crotch Lake                        | 06/20/79                  | grab               | 79-49         | N.L.              | 13.3 | 5600         | - unaerated - pH adjusted<br>to 7.8              |
|  | Plant (CL-02) [p]                                   | 06/20/79                  | grab               | 79-49         | 7.5 %             | 13.3 | 5600         | - unaerated                                      |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION  | EFFLUENT   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS  |
|---|--|---------------------------|--------------------|---------------|-------------------|------|--------------|---|
| RIO ALGOM MINES<br>MILLIKEN-STANLEIGH<br>MINES<br>- Crotch Lake (NE)<br>(Continued) | Feed to Crotch<br>Lake Treat-<br>ment Plant<br>(CL-01) [p] | 06/20/79                  | grab               | 79-48         | N.L.              | 2.1  | 1400         | - unaerated - pH adjusted<br>to 7.9                     |
|   | Crotch Lake<br>Outlet<br>(CL-04) [e]                       | 08/23/76                  | grab               | M1-76-25      | N.L.              | 7.3  | 330          | - unaerated   |
|   |  | 06/20/77                  | grab               | M1-77-24      | N.L.              | 7.1  | 260          |   |
|   |  | 06/20/77                  | grab               | M1-77-24      | N.L.              | 7.1  | 260          | - unaerated   |
|   |  | 06/19/79                  | grab               | 79-50         | N.L.              | 7.6  | 295          | - unaerated   |
|   |  | 08/22/79                  | grab               | 79-125        | N.L.              | 7.6  | 280          | - unaerated   |
| RIO ALGOM MINES<br>NORDIC PROPERTY<br>- Elliot Lake (NE)                            | Serpent R.<br>at Hwy 17 [1]                                | 08/22/79                  | grab               | 79-136        | N.L.              | 7.2  | 165          | - unaerated   |
|   | North Nordic<br>Lake Effluent<br>(N-19) [e]                | 06/19/79                  | grab               | 79-53         | N.L.              | 8.2  | 1220         | - unaerated   |
|   |  | 08/22/79                  | grab               | 79-127        | N.L.              | 7.3  | 1310         | - unaerated   |
|   | Effluent from<br>Nordic Treat-<br>ment Plant<br>(N-18) [p] | 06/19/79                  | grab               | 79-52         | 46 %              | 12.4 | 2500         | - unaerated<br>LC50 range 30-70 %<br>pH adjusted to 7.8 |
|   |  | 06/19/79                  | grab               | 79-52         | 24 %              | 12.4 | 2500         | - unaerated<br>LC50 range 20-30 %                       |
|   |  | 08/22/79                  | grab               | 79-126        | 26.3 %            | 11.7 | 2150         |   |
|   |  | 08/22/79                  | grab               | 79-126        | 100 %             | 11.7 | 2150         | - unaerated<br>pH adjusted to 8.2                       |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                             | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS   |
|--|---|---------------------------|--------------------|---------------|-------------------|-----|--------------|--|
| RIO ALGOM MINES<br>NORDIC PROPERTY<br>- Elliot Lake (NE) | Feed to Nordic<br>Treatment<br>Plant (N-17) [p] | 06/19/79                  | grab               | 79-51         | N.L.              | 2.1 | 2000         | - pH adjusted to 7.6<br>unaerated                            |
|  | Buckles Creek<br>at Hwy 108 [p]                 | 08/30/76                  | grab               | M1-76-27      | >100 %            | 6.0 | 920          | - unaerated - 30 % mortality<br>in 100 %                     |
|  |   | 07/11/77                  | grab               | M1-77-33      | N.L.              | 6.9 | 1050         | - unaerated  |
|  |   | 07/11/77                  | grab               | M1-77-33      | N.L.              | 6.9 | 1050         |  |
| RIO ALGOMA MINES<br>PANEL MINE<br>- Elliot Lake (NE)     | Strike Lake<br>Effluent [e]                     | 09/07/76                  | grab               | M1-76-29      | 20 %              | 3.9 | 430          | - unaerated  |
|  |   | 09/07/76                  | grab               | M1-76-29      | >100 %            | 3.9 | 430          | - unaerated<br>pH adjusted to 7.0<br>10 % mortality in 100 % |
|  |   | 06/20/77                  | grab               | M1-77-25      | >100 %            | 4.5 | 425          | - unaerated<br>30 % mortality in 100 %<br>pH adjusted to 7   |
|  |   | 06/20/77                  | grab               | M1-77-25      | <100 %            | 4.5 | 425          | - 100 % killed all fish<br>in 33 hrs.                        |
|  |   | 08/20/80                  | grab               | 80-139        | >100 %            | 8.9 | 1700         | - 40 % mortality in 100 %                                    |
|  |   |                           |                    |               |                   |     |              |  |
| RIO ALGOM MINES<br>PRONTO PROPERTY<br>- Elliot Lake (NE) | Pronto Effl.<br>at Hwy 17<br>(PR-01) [1]        | 08/16/76                  | grab               | M1-76-23      | N.L.              | 6.5 | 470          |  |
|  |   | 07/11/77                  | grab               | M1-77-32      | N.L.              | 6.9 | 560          | - unaerated  |
|  |   | 07/11/77                  | grab               | M1-77-32      | N.L.              | 6.9 | 560          |  |
|  |   | 06/21/79                  | grab               | 79-54         | N.L.              | 6.4 | 660          | - unaerated  |
|  |   | 08/22/79                  | grab               | 79-128        | N.L.              | 7.0 | 405          | - unaerated  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION  | EFFLUENT   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUC-<br>TIVITY | COMMENTS   |
|---|--|---------------------------|--------------------|---------------|-------------------|------|-------------------|--|
| RIO ALGOM MINES<br>PRONTO PROPERTY<br>- Elliot Lake (NE)<br>(Continued) | Treated Effl.<br>leaving Treat-<br>ment Plant<br>(PR-03) [e] | 06/19/79                  | grab               | 79-56         | N.L.              | 12.1 | 1340              | - pH adjusted to 7.8<br>unaerated  |
|   |  | 06/19/79                  | grab               | 79-56         | N.L.*             | 12.1 | 1340              | - unaerated * at 30 %  |
|   |  | 06/19/77                  | grab               | 79-56         | N.L.*             | 12.1 | 1340              | - unaerated * at 50 %  |
|   | Treated Effl.<br>O/F settling<br>area (PR-04) [p]            | 06/19/79                  | grab               | 79-57         | N.L.              | 11.5 | 840               | - unaerated<br>pH adjusted to 7.8  |
|   | Feed to Pronto<br>Treatment<br>Plant (PR-02) [p]             | 06/19/79                  | grab               | 79-55         | N.L.              | 2.2  | 980               | - pH adjusted to 7.8<br>unaerated  |
| RIO ALGOM MINES<br>QUIRKE PROPERTY<br>- Elliot Lake (NE)                | Dunlop Lake<br>at Pumphouse<br>(Q-19) [s]                    | 06/20/79                  | grab               | 79-62         | N.L.              | 7.6  | 35                | - unaerated  |
|   |  | 08/22/79                  | grab               | 79-135        | N.L.              | 7.9  | 38                | - unaerated  |
|   | Quirke Mine<br>(Q-05) [p]                                    | 08/22/79                  | grab               | 79-129        | 17 %              | 9.8  | 2050              | - unaerated<br>LC50 range 10-30 %  |
|   |  | 08/22/79                  | grab               | 79-129        | N.L.              | 9.8  | 2050              | - unaerated Dowex resin<br>treated for removal of<br>ammonia               |
|   |  | 08/22/79                  | grab               | 79-129        | <100 %            | 9.8  | 2050              | - unaerated<br>pH adjusted to 8.5 -<br>100 % killed all fish<br>in 24 hrs. |
|   | Serpent River at<br>Rio Algom railroad<br>[1]                | 06/20/79                  | grab               | 79-63         | N.L.              | 8.6  | 580               | - unaerated  |



## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION  | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                              |
|---|---|---------------------------|--------------------|---------------|-------------------|------|--------------|---------------------------------------|
| RIO ALGOM MINES<br>QUIRKE PROPERTY<br>- Elliot Lake (NE)<br>(Continued) | Serpent River<br>below effluent<br>addition, at<br>flow station<br>(Q-09) [1] | 06/20/79                  | grab               | 79-61         | N.L.              | 8.5  | 720          | - unaerated                           |
|   |   | 08/22/79                  | grab               | 79-134        | N.L.              | 7.0  | 1040         | - unaerated                           |
|   | Serpent River<br>above effluent<br>addition, at<br>Mine Rd. (Q-08) [1]        | 06/20/79                  | grab               | 79-60         | N.L.              | 8.0  | 305          | - unaerated                           |
|   |   | 08/22/79                  | grab               | 79-153        | N.L.              | 7.6  | 2000         | - unaerated                           |
|   | Tailings<br>Effluent to<br>Serpent River<br>at Hwy 108<br>(Q-06) [1]          | 06/20/79                  | grab               | 79-59         | N.L.              | 10.3 |              | - unaerated                           |
|   |   | 06/20/79                  | grab               | 79-59         | N.L.*             | 10.3 |              | pH adjusted to 7.6                    |
|   |   | 06/20/79                  | grab               | 79-59         | 70 %              | 10.3 |              | - unaerated * at 30 %                 |
|   |   | 08/22/79                  | grab               | 79-132        | N.L.              | 7.0  | 2000         | - unaerated                           |
|   | Tailings<br>Effluent<br>after treat-<br>ment (Q-3) [e]                        | 07/11/77                  | grab               | M1-77-31      | >100 %*           | 7.7  | 2400         | - unaerated * 24 hr LC50              |
|   |   | 07/11/77                  | grab               | M1-77-31      | 100 %             | 7.7  | 2400         | 20 % mortality in 100 %               |
|   |   | 06/20/79                  | grab               | 79-58         | <100 %            | 11.4 | 2200         | - unaerated                           |
|   |   | 06/20/79                  | grab               | 79-58         | N.L.*             | 11.4 | 2200         | pH adjusted to 7.8                    |
|   | Dam Effluent<br>at Quirke [p]   | 08/22/79                  | grab               | 79-131        | N.L.              | 7.6  | 2400         | 100 % killed all fish<br>in 48 hrs.   |
|   |   |                           |                    |               |                   |      |              | - unaerated * at 50 %                 |
|   |   |                           |                    |               |                   |      |              | - unaerated                           |
|   |   | 08/30/76                  | grab               | M1-76-26      | <10 %             | 7.0  | 2200         | - 80 % mortality in 10 %<br>unaerated |
|   |   | 06/10/80                  | grab               | 80-91         | 48 %              | 8.5  | 2500         |                                       |
|   |   | 06/10/80                  | grab               | 80-92         | N.L.              | 8.5  | 2750         | - clinoptilolite treated              |
|   |   | 08/20/80                  | grab               | 80-138        | 59 %              | 8.3  | 2600         |                                       |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION      | EFFLUENT                            | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                  |
|-----------------------------------|-------------------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|---------------------------|
| ROHM & HAAS<br>- Morrisberg (SE)  | Cooling<br>Water [e]                | 07/12/77                  | grab               | M2-77-51      | N.L.              | 7.2  | 310          |                           |
| SCHUMACHER MINE<br>- Timmins (NE) | Tailings Pond<br>Decant [e]         | 10/28/80                  | grab               | 80-203        | 20 %              | 7.6  | 1750         |                           |
| SCOTT ROAD DUMP<br>- Sarnia       | Outfall to<br>Township Ditch<br>[e] | 06/27/79                  | grab               | M2-79-8       | 66 %              | 9.34 | 271          | - 30 % mortality in 100 % |
|                                   |                                     | 07/19/79                  | grab               | M2-79-14      | >100 %            | 8.5  | 1200         |                           |
|                                   |                                     | 07/26/79                  | grab               | M2-79-20      | N.L.              | 8.19 | 2180         |                           |
|                                   |                                     | 08/01/79                  | grab               | M2-79-29      | N.L.              | 7.8  | 1780         |                           |
|                                   |                                     | 09/25/80                  | grab               | M2-80-18      | N.L.              |      |              |                           |
| SHELL CANADA<br>- Corunna (SW)    | Cooling<br>Water [e]                | 05/29/79                  | grab               | 79-20         | N.L.*             | 8.1  | 490          | - * 24 hr test            |
|                                   |                                     | 09/28/81                  | grab               | 81-143        | N.L.              | 8.3  | 163          |                           |
|                                   | Total Effl. [e]                     | 07/12/76                  | 3-gr comb.         | 76-132        | N.L.              | 7.7  | 250          | - unaerated               |
|                                   |                                     | 05/29/79                  | "                  | 79-22         | N.L.*             | 8.0  | 340          | - * 24 hr test            |
|                                   |                                     | 09/28/81                  | grab               | 81-144        | N.L.              | 9.3  | 255          |                           |
|                                   | Intake [s]                          | 07/12/76                  | grab               | 76-133        | N.L.              | 8.3  | 205          | - unaerated               |
|                                   |                                     | 05/29/79                  | grab               | 79-21         | N.L.*             | 8.4  |              | - * 24 hr test at 100 %   |
| SHELL CANADA<br>- Oakville (C)    | Final<br>holding<br>pond [e]        | 07/28/75                  | grab               |               | N.L.              |      |              | - continuous flow         |
|                                   |                                     | 06/11/79                  | grab               | 79-46         | N.L.              | 7.8  |              | - * 24 hr LC50            |
|                                   |                                     | 06/11/79                  | grab               | 79-46         | N.L.*             | 7.7  |              |                           |
|                                   |                                     | 04/13/81                  | grab               | 81-37         | 38 %              | 7.3  | 2200         |                           |
|                                   |                                     | 11/24/81                  | grab               | 81-171        | N.L.              | 7.79 | 1850         |                           |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                            | EFFLUENT                                     | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                                       |
|---|--|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| SHERMAN MINE<br>- Temagami (NE)                         | 1/4 mile<br>below Weir on<br>Tetapaga R. [1] | 06/29/76                  | grab               | M1-76-10      | N.L.              | 7.5  | 480          | - unaerated                                    |
|   | South Pit<br>[d]                             | 07/20/77                  | grab               | M1-77-44      | >100 %            | 2.9  | 2500         | - pH adjusted to 6.3<br>30 % mortality in 100% |
|   |  | 07/20/77                  | grab               | M1-77-44      | <100 %            | 2.9  | 2500         | - 100 % killed 11 fish<br>in 1.5 hrs.          |
|   | Mine Effluent [e]                            | 09/20/76                  | grab               | M1-76-42      | N.L.              | 8.3  | 580          | - unaerated                                    |
| SKYWAY SEWAGE<br>TREATMENT PLANT<br>- Burlington (C)    | Before<br>Chlorination [e]                   | 10/04/76                  | grab               | 76-167        | >100 %            | 7.9  | 740          | - 10 % mortality in 100%                       |
| SPRUCE FALLS<br>POWER & PAPER CO.<br>- Kapuskasing (NE) | Red liquor<br>stream [p]                     | 11/19/79                  | grab               | 79-172        | 1.0 %             | 3.1  | 2750         |  |
|   | Condensate<br>stream [p]                     | 11/09/79                  | grab               | 79-171        | 2.3 %             | 1.8  | 5400         |  |
|   | Magnefite<br>stream [p]                      | 11/19/79                  | grab               | 79-173        | 13 %              | 2.65 | 1160         | - LC50 range 9-18 %                            |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION   | EFFLUENT                               | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS                            |
|--|--|---------------------------|--------------------|---------------|-------------------|-----|--------------|-------------------------------------|
| SPRUCE FALLS<br>POWER & PAPER CO.<br>- Kapuskasing (NE)<br>(Continued) | TMP chip<br>washer [p]                 | 07/15/78                  | grab               | 78-41         | 0.9 %             | 5.0 | 160          | - pH adjusted to 6.5                |
|  |  | 07/15/78                  | grab               | 78-41         | 1.7 %             | 5.0 | 160          |                                     |
|  | TMP stock<br>liquor [p]                | 07/15/78                  | grab               | 78-43         | 2.3 %             | 6.2 | 70           |                                     |
|  | Groundwood<br>mill stock<br>liquor [p] | 05/19/77                  | grab               | M1-77-2       | 14 %              | 6.8 | 79           | - LC50 range 10-20 %                |
|  | Chip Washer<br>water [p]               | 06/14/77                  | grab               | M1-77-19      | < 2 %             | 5.3 | 155          | - 2 % killed all fish<br>in 12 hrs. |
|  | 4th Stage<br>reject liquor [p]         | 06/14/77                  | grab               | M1-77-18      | < 2 %             | 5.4 | 160          | - 2 % killed all fish<br>in 24 hrs. |
|  |  | 07/15/78                  | grab               | 78-42         | 3.6 %             | 2.3 | 540          | - pH adjusted                       |
|  |  | 07/15/78                  | grab               | 78-42         | 11.8 %            | 2.3 | 540          |                                     |
|  | Warmwater<br>intake to<br>TMP [p]      | 06/15/78                  | grab               | M1-77-20      | N.L.              | 7.5 | 108          |                                     |
|  | Pulp Stock<br>- no bleach [p]          | 06/15/77                  | grab               | M1-77-21      | 2 %               | 6.3 | 140          |                                     |
|  | Pulp Stock [p]<br>- with bleach        | 06/15/77                  | grab               | M1-77-22      | < 2 %             | 5.2 | 240          | - 80% mortality in 2%               |
|  | Process Warm-<br>water [p]             | 07/15/78                  | grab               | 78-40         | > 100 %           | 7.9 | 85           | - 10% mortality in 100%             |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION   | EFFLUENT                                 | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD                     | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS                 |
|--|--|---------------------------|--|---------------|-------------------|-----|--------------|--------------------------|
| SPRUCE FALLS<br>POWER & PAPER CO.<br>- Kapuskasing (NE)<br>(Continued) | Main Mill<br>Effluent [e]                | 07/06/76                  | grab                                   | M1-76-12      | 22 %              | 6.3 | 1400         | - unaerated              |
|  |  | 07/06/76                  | grab                                   | M1-76-12      | 42 %              | 6.3 | 1400         | - LC50 range 32-56 %     |
|  |  | 07/20/76                  | grab                                   | M1-76-14      | 14 %              | 3.8 | 510          | - unaerated              |
|  |  |                           |  |               |                   |     |              | LC50 range 10-20 %       |
|  |  | 07/20/76                  | gran                                   | M1-76-14      | 14 %              | 3.8 | 510          | - " "                    |
|  |  | 09/20/76                  | grab                                   | M1-76-40      | >10 %             | 3.7 | 530          | - unaerated              |
|  | Groundwood<br>whitewater<br>overflow [p] | 09/20/76                  | grab                                   | M1-76-40      | <10 %             | 3.7 | 530          | - 30 % mortality in 10 % |
|  |  |                           |  |               |                   |     |              | - 10 % killed all fish   |
|  |  |                           |  |               |                   |     |              | in 96 hrs.               |
|  |  | 08/27/79                  | grab                                   | 79-147        | 24 %              | 4.0 | 560          | - LC50 range 17.5-32.5 % |
|  |  | 11/19/79                  | grab                                   | 79-174        | 37 %              | 6.0 | 486          |                          |
|  |  | 05/19/77                  | grab                                   | M1-1-77       | N.L.              | 6.4 | 148          |                          |
|  |  | 08/27/79                  | grab                                   | 79-148        | 47.7 %            | 4.9 | 355          | - CL50 range 32.5-70 %   |
|  | TMP Final<br>Effluent [p]                | 07/15/78                  | grab                                   | 78-44         | 3.2 %             | 6.0 | 140          | - LC50 range 2-5 %       |
|  |  | 08/27/79                  | grab                                   | 79-150        | 1.2 %             | 5.0 | 415          |                          |
|  | Ca sulfite<br>effluent [p]               | 08/27/79                  | 1 gr. every<br>5 min over<br>1h 20 min | 79-149        | 3.5 %             | 2.2 | 4150         |                          |
|  |  | 08/27/79                  | "                                      | 79-149        | 10 %              | 2.2 | 4150         | - pH adjusted to 8.0     |
|  | Intake [s]                               | 08/27/79                  | grab                                   | 79-151        | N.L.              | 7.7 | 110          |                          |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION | EFFLUENT                           | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                                       |
|------------------------------|------------------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|--|
| STELCO<br>- Hamilton (WC)    | West Side<br>Open Cut<br>Sewer [e] | 06/23/69                  | grab               |               | .9 %              |      |              | - unaerated<br>red belly dace used             |
|                              |                                    | 08/25/75                  | grab               |               | 3.0 %             |      |              | - unaerated                                    |
|                              |                                    | 08/25/75                  | grab               |               | 2.4 %             |      |              | - unaerated                                    |
|                              |                                    | 09/09/75                  | grab               |               | 4.2 %             |      |              | - unaerated                                    |
|                              |                                    | 04/05/76                  | grab               | 76-42         | 2.2 %             | 7.35 | 780          | - unaerated                                    |
|                              |                                    | 06/06/77                  | grab               | 77-78         | 8.5 %             | 7.7  | 470          |  |
|                              |                                    | 01/12/78                  | grab               | 78-2          | 1.4 %             | 7.5  | 720          | - continuous flow bioassay<br>LC range 1-2 %   |
|                              |                                    | 01/12/78                  | grab               | 78-2          | 0.7 %             | 6.6  | 750          |  |
|                              |                                    | 01/12/78                  | grab               | 78-2          | 1.1 %             | 7.5  | 720          |  |
|                              |                                    | 03/13/78                  | grab               | 78-13         | 3.8 %             | 8.2  | 560          |  |
|                              |                                    | 05/24/78                  | 24hr comp.         | M2-78-17      | 7.0 %             | 7.32 | 518          |  |
|                              |                                    | 05/25/78                  | 24hr comp.         | M2-78-21      | N.L.*             | 7.9  | 740          | - * at 60 %                                    |
|                              |                                    | 05/26/78                  | 24hr comp.         | M2-78-25      | N.L.              | 8.0  | 640          |  |
|                              |                                    | 05/30/78                  | 24hr comp.         | M2-78-29      | N.L.              | 7.7  | 640          |  |
|                              |                                    | 05/31/78                  | 24hr comp.         | M2-78-35      | N.L.              | 7.65 | 630          |  |
|                              |                                    | 06/01/78                  | 24hr comp.         | M2-78-39      | N.L.              | 7.45 | 440          |  |
|                              |                                    | 06/06/78                  | 24hr comp.         | M2-78-43      | 49 %              | 7.6  | 550          | - LC50 range 40-60 %                           |
|                              |                                    | 06/07/78                  | 24hr comp.         | M2-78-48      | N.L.              | 7.25 | 600          |  |
|                              |                                    | 06/08/78                  | 24hr comp.         | M2-78-53      |                   | 7.7  | 600          |  |
|                              |                                    | 06/13/78                  | 24hr comp.         | M2-78-58      | 35 %              | 7.98 | 580          |  |
|                              |                                    | 06/13/78                  | grab               | M2-78-61      | 1.7 %             | 7.5  | 560          |  |
|                              |                                    | 06/14/78                  | 24hr comp.         | M2-78-64      | 17.2 %            | 8.15 | 560          | - LC50 range 10-30 %                           |
|                              |                                    | 06/13/78                  | grab               | M2-78-61      | 1.4 %             | 7.7  | 440          | - LC50 range 1-2 %                             |
|                              |                                    | 06/13/78                  | grab               | M2-78-97      | N.L.*             |      |              | - * at 10 %                                    |
|                              |                                    | 06/13/78                  | grab               | M2-78-98      | N.L.*             |      |              | - Effluent renewed every<br>48 hrs - * at 5 %  |
|                              |                                    | 06/13/78                  | grab               | M2-78-99      | N.L.*             |      |              | - Effluent renewed every<br>24 hrs - * at 10 % |
|                              |                                    | 06/13/78                  | grab               | M2-78-61      | 2.2 %             |      |              |  |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION             | EFFLUENT                           | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                                  |
|--|------------------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|---|
| STELCO<br>- Hamilton (WC)<br>(Continued) | West Side<br>Open Cut<br>Sewer [e] | 06/15/78                  | 24hr comp.         | M2-78-69      | 9.4 %             | 8.05 | 660          |   |
|  |                                    | 06/16/78                  | 24hr comp.         | M2-78-73      | N.L.              | 7.3  | 620          |   |
|  |                                    | 06/17/78                  | 24hr comp.         | M2-78-75      | N.L.              | 7.6  | 440          |   |
|  |                                    | 06/18/78                  | 24hr comp.         | M2-78-77      | N.L.              | 7.35 | 610          |   |
|  |                                    | 06/19/78                  | 24hr comp.         | M2-78-81      | N.L.              | 7.45 | 605          |   |
|  |                                    | 06/19/78                  | 24hr comp.         | M2-78-83      | >100 %            | 8.0  | 620          | - 40% mortality in 100%                   |
|  |                                    | 06/20/78                  | 24hr comp.         | M2-78-85      | N.L.              | 7.8  | 610          |   |
|  |                                    | 06/21/78                  | 24hr comp.         | M2-78-90      | >100 %            | 7.95 | 620          | - 20% mortality in 100%                   |
|  |                                    | 06/22/78                  | 24hr comp.         | M2-78-94      | N.L.              | 7.9  | 600          |   |
|  |                                    | 06/27/78                  | 24hr comp.         | M2-78-101     | N.L.              | 8.1  | 660          |   |
|  |                                    | 06/28/78                  | 24hr comp.         | M2-78-108     | N.L.              | 8.15 | 680          |   |
|  |                                    | 06/29/78                  | 24hr comp.         | M2-78-111     | N.L.              | 8.35 | 660          |   |
|  |                                    | 07/05/78                  | 24hr comp.         | M2-78-120     | N.L.              | 7.97 | 610          |   |
|  |                                    | 07/06/78                  | 24hr comp.         | M2-78-124     | N.L.              | 8.37 | 650          |   |
|  |                                    | 07/07/78                  | 24hr comp.         | M2-78-127     | N.L.              | 7.4  | 680          |   |
|  |                                    | 07/11/78                  | 24hr comp.         | M2-78-128     | 29 %              | 7.65 | 560          |   |
|  |                                    | 07/12/78                  | 24hr comp.         | M2-78-143     | N.L.              | 7.9  | 630          |   |
|  |                                    | 07/18/78                  | 24hr comp.         | M2-78-153     | 28 %              | 6.85 | 640          | - LC50 range 20-40 %                      |
|  |                                    | 08/22/78                  | grab               | M2-78-237     | 45 %              | 7.5  | 620          | - LC50 range 40-50 %                      |
|  |                                    | 08/24/78                  | grab               | M2-78-244     | 34.7 %            | 8.0  | 580          | - LC50 range 30-40 %                      |
|  |                                    | 08/29/78                  | grab               | M2-78-250     | N.L.              | 8.0  | 540          |   |
|  |                                    | 08/31/78                  | grab               | M2-78-257     | >100 %            | 7.6  | 500          | - 10% mortality in 100%                   |
|  |                                    | 09/06/78                  | grab               | M2-78-261     | 1.75 %            | 8.7  | 690          | - LC50 range 1-3%                         |
|  |                                    | 09/08/78                  | grab               | M2-78-270     | 3.8 %             | 7.2  | 540          | - LC50 range 3-5%                         |
|  |                                    | 09/12/78                  | grab               | M2-78-271     | 8.5 %             | 7.5  | 520          | - LC50 range 7-10%                        |
|  |                                    | 09/14/78                  | grab               | M2-78-281     | 31 %              | 7.3  | 600          |   |
|  |                                    | 01/12/78                  | grab               | 78-2          | 1.75 %            |      |              | - continuous flow<br>LC50 range 1.25-2.5% |
|  |                                    | 01/12/78                  | grab               | 78-2          | 1.75 %            |      |              | - continuous flow<br>LC50 range 1.25-2.5% |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION             | EFFLUENT                           | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                             |
|--|------------------------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|--------------------------------------|
| STELCO<br>- Hamilton (WC)<br>(Continued) | West Side<br>Open Cut [e]<br>Sewer | 07/09/80                  | grab               | 80-107        | 2-5 %             | 7.3  | 530          |                                      |
|  |                                    | 07/23/80                  | grab               | 80-110        | 12.3 %            |      |              |                                      |
|  | North West<br>Outfall [e]          | 05/30/78                  | 24hr comp.         | M2-78-32      | 3.7 %             | 8.8  | 590          | - LC50 range 3-5 %                   |
|  |                                    | 05/31/78                  | 24hr comp.         | M2-78-36      | 17 %              | 8.05 | 590          |                                      |
|  |                                    | 06/01/78                  | 24hr comp.         | M2-78-40      | N.L.              | 7.45 | 405          |                                      |
|  |                                    | 06/03/78                  | 24hr comp.         | M2-78-45      | N.L.              | 7.4  | 550          |                                      |
|  |                                    | 06/07/78                  | 24hr comp.         | M2-78-50      | N.L.              | 7.5  | 540          |                                      |
|  |                                    | 06/08/78                  | 24hr comp.         | M2-78-55      | <75 %             | 8.4  | 610          | - 75 % killed all fish<br>in 24 hrs  |
|  |                                    | 06/13/78                  | 24hr comp.         | M2-78-60      | N.L.              | 7.4  | 530          |                                      |
|  |                                    | 06/14/78                  | 24hr comp.         | M2-78-66      | N.L.              | 7.6  | 500          |                                      |
|  |                                    | 06/15/78                  | 24hr comp.         | M2-78-71      | 72 %              | 8.4  | 560          | - LC50 range 50-100 %                |
|  |                                    | 06/17/78                  | 24hr comp.         | M2-78-76      | N.L.              | 7.95 | 415          |                                      |
|  |                                    | 06/18/78                  | 24hr comp.         | M2-78-78      | N.L.              | 8.25 | 600          |                                      |
|  |                                    | 06/19/78                  | 24hr comp.         | M2-78-82      | N.L.              | 7.85 | 565          |                                      |
|  |                                    | 06/20/78                  | 24hr comp.         | M2-78-86      | N.L.              | 7.7  | 580          |                                      |
|  |                                    | 06/22/78                  | 24hr comp.         | M2-78-95      | N.L.              | 7.8  | 580          |                                      |
|  |                                    | 06/27/78                  | 24hr comp.         | M2-78-102     | 7.2 %             | 9.1  | 640          | - LC50 range 5-10 %                  |
|  |                                    | 06/28/78                  | 24hr comp.         | M2-78-109     | 13.1 %            | 8.7  | 600          |                                      |
|  |                                    | 06/29/78                  | 24hr comp.         | M2-78-112     | 32 %              | 8.3  | 610          | - LC50 range 20-50 %                 |
|  |                                    | 07/05/78                  | 24hr comp.         | M2-78-121     | 78 %              | 8.37 | 520          |                                      |
|  |                                    | 07/06/78                  | 24hr comp.         | M2-78-125     | 0.88 %            | 9.25 | 620          | - LC50 range 0.75-1 %                |
|  |                                    | 07/07/78                  | 24hr comp.         | M2-78-128     | 17.4 %            | 8.3  | 680          |                                      |
|  |                                    | 07/11/78                  | 24hr comp.         | M2-78-132     | 7.7 %             | 8.4  | 620          | - LC50 range 5-10 %                  |
|  |                                    | 07/12/78                  | 24hr comp.         | M2-78-142     | 14 %              | 7.9  | 635          |                                      |
|  |                                    | 07/13/78                  | 24hr comp.         | M2-78-147     | <20 %             | 7.4  | 615          | - 20 % killed all fish in<br>96 hrs. |
|  |                                    | 07/13/78                  | 24hr comp.         | M2-78-125     | 3.1 %             |      |              |                                      |
|  |                                    | 07/09/80                  | grab               | 80-108        | N.L.              | 7.7  | 500          | - LC50 range 2-5 %                   |
|  |                                    | 07/23/80                  | grab               | 80-109        | 87 %              | 8.1  | 430          |                                      |



## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION             | EFFLUENT              | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS                |
|--|-----------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|-------------------------|
| STELCO<br>- Hamilton (WC)<br>(Continued) | #2 Pumphouse [s]      | 05/24/78                  | 24hr comp.         | M2-78-19      | 100 %             | 8.1  | 510          |                         |
|  |                       | 05/25/78                  | 24hr comp.         | M2-78-23      | N.L.              | 8.2  | 580          |                         |
|  |                       | 05/26/78                  | 24hr comp.         | M2-78-27      | N.L.              | 8.4  | 570          |                         |
|  |                       | 05/30/78                  | 24hr comp.         | M2-78-31      | N.L.              | 8.05 | 580          |                         |
|  |                       | 05/31/78                  | 24hr comp.         | M2-78-34      | N.L.              | 8.15 | 525          |                         |
|  |                       | 06/01/78                  | 24hr comp.         | M2-78-38      | N.L.              | 8.05 | 380          |                         |
|  |                       | 06/06/78                  | 24hr comp.         | M2-78-42      | N.L.              | 7.9  | 520          |                         |
|  |                       | 06/07/78                  | 24hr comp.         | M2-78-47      | N.L.              | 7.5  | 520          |                         |
|  |                       | 06/08/78                  | 24hr comp.         | M2-78-52      | N.L.              | 8.0  | 510          |                         |
|  |                       | 06/13/78                  | 24hr comp.         | M2-78-57      | N.L.              | 8.25 | 480          |                         |
|  |                       | 06/14/78                  | 24hr comp.         | M2-78-63      | N.L.              | 8.2  | 565          |                         |
|  |                       | 06/15/78                  | 24hr comp.         | M2-78-68      | N.L.              | 7.7  | 510          |                         |
|  |                       | 06/16/78                  | 24hr comp.         | M2-78-72      | N.L.              | 8.25 | 500          |                         |
|  |                       | 06/17/78                  | 24hr comp.         | M2-78-74      | N.L.              | 7.3  | 490          |                         |
|  |                       | 06/18/78                  | 24hr comp.         | M2-78-79      | N.L.              | 7.55 | 520          |                         |
|  |                       | 06/19/78                  | 24hr comp.         | M2-78-80      | N.L.              | 7.9  | 510          |                         |
|  |                       | 06/20/78                  | 24hr comp.         | M2-78-84      | N.L.              | 8.5  | 540          |                         |
|  |                       | 06/21/78                  | 24hr comp.         | M2-78-89      | N.L.              | 7.8  | 560          |                         |
|  |                       | 06/22/78                  | 24hr comp.         | M2-78-93      | N.L.              | 7.6  | 540          |                         |
|  |                       | 07/11/78                  | 24hr comp.         | M2-78-130     | N.L.              | 8.5  | 490          |                         |
|  |                       | 07/12/78                  | 24hr comp.         | M2-78-139     | N.L.              | 7.5  | 540          |                         |
|  |                       | 07/13/78                  | 24hr comp.         | M2-78-145     | N.L.              | 7.35 | 525          |                         |
|  |                       | 07/09/80                  | grab               | 80-106        | N.L.              | 7.8  | 485          |                         |
|  |                       | 07/23/80                  | grab               | 80-112        | N.L.              | 8.0  | 410          |                         |
|  | #3 Open<br>Hearth [e] | 05/24/78                  | 24hr comp.         | M2-78-16      | N.L.              | 8.4  | 540          |                         |
|  |                       | 05/25/78                  | 24hr comp.         | M2-78-20      | N.L.              | 8.25 | 620          |                         |
|  |                       | 05/26/78                  | 24hr comp.         | M2-78-24      | >100 %            | 8.1  | 550          | - 10% mortality in 100% |
|  |                       | 05/30/78                  | grab               | M2-78-28      | N.L.              | 7.95 | 560          |                         |
|  |                       | 06/06/78                  | 24hr comp.         | M2-78-44      | N.L.              | 7.6  | 510          |                         |
|  |                       | 06/07/78                  | 24hr comp.         | M2-78-49      | N.L.              | 7.5  | 540          |                         |
|  |                       | 06/08/78                  | 24hr comp.         | M2-78-54      | N.L.              | 7.5  | 500          |                         |
|  |                       | 06/13/78                  | 24hr comp.         | M2-78-59      | N.L.              | 8.17 | 495          |                         |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION             | EFFLUENT          | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS |
|--|-------------------|---------------------------|--------------------|---------------|-------------------|------|--------------|----------|
| STELCO<br>- Hamilton (WC)<br>(Continued) |                   | 06/14/78                  | 24hr comp.         | M2-78-65      | N.L.              | 8.45 | 475          |          |
|  |                   | 06/15/78                  | 24hr comp.         | M2-78-70      | N.L.              | 7.55 | 540          |          |
|  |                   | 06/20/78                  | 24hr comp.         | M2-78-87      | N.L.              | 7.2  | 540          |          |
|  |                   | 06/21/78                  | 24hr comp.         | M2-78-92      | N.L.              | 8.0  | 525          |          |
|  |                   | 06/22/78                  | 24hr comp.         | M2-78-96      | N.L.              | 7.6  | 540          |          |
|  |                   | 06/27/78                  | 24hr comp.         | M2-78-103     | N.L.              | 8.0  | 570          |          |
|  |                   | 06/28/78                  | 24hr comp.         | M2-78-110     | N.L.              | 8.1  | 560          |          |
|  |                   | 06/29/78                  | 24hr comp.         | M2-78-113     | N.L.              | 8.2  | 560          |          |
|  |                   | 07/05/78                  | 24hr comp.         | M2-78-119     | N.L.              | 8.05 | 540          |          |
|  |                   | 07/06/78                  | 24hr comp.         | M2-78-123     | N.L.              | 7.95 | 580          |          |
|  |                   | 07/07/78                  | 24hr comp.         | M2-78-126     | N.L.              | 7.4  | 500          |          |
|  |                   | 07/11/78                  | 24hr comp.         | M2-78-131     | N.L.              | 7.55 | 520          |          |
|  |                   | 07/12/78                  | 24hr comp.         | M2-78-141     | N.L.              | 7.25 | 510          |          |
|  |                   | 07/13/78                  | 24hr comp.         | M2-78-146     | N.L.              | 7.2  | 520          |          |
|  | Rolling Mill      | 07/11/78                  | grab               | M2-78-137     | N.L.              | 8.5  | 550          |          |
|  | Cooling Water [e] | 07/17/78                  | grab               | M2-78-148     | N.L.              | 7.09 | 540          |          |
|  | Filtration [e]    | 06/27/78                  | grab               | M2-78-106     | N.L.              | 7.75 | 560          |          |
|  | Outfall           | 07/11/78                  | grab               | M2-78-135     | N.L.              | 7.95 | 540          |          |
|  | (East Side)       | 07/17/78                  | grab               | M2-78-152     | N.L.              | 7.05 | 520          |          |
|  |                   | 07/18/78                  | grab               | M2-78-157     | N.L.              | 7.35 | 565          |          |
|  |                   | 07/19/78                  | grab               | M2-78-161     | N.L.              | 6.9  | 525          |          |
|  | #1 Pumphouse [s]  | 05/24/78                  | 24hr comp.         | M2-78-18      | N.L.              | 8.1  | 455          |          |
|  |                   | 05/25/78                  | 24hr comp.         | M2-78-22      | N.L.              | 8.45 | 605          |          |
|  |                   | 06/25/78                  | 24hr comp.         | M2-78-26      | N.L.              | 8.55 | 510          |          |
|  |                   | 05/30/78                  | 24hr comp.         | M2-78-30      | N.L.              | 8.45 | 580          |          |
|  |                   | 05/31/78                  | 24hr comp.         | M2-78-33      | N.L.              | 8.37 | 580          |          |
|  |                   | 06/01/78                  | 24hr comp.         | M2-78-37      | N.L.              | 8.15 | 370          |          |
|  |                   | 06/06/78                  | 24hr comp.         | M2-78-41      | N.L.              | 8.3  | 510          |          |
|  |                   | 06/07/78                  | 24hr comp.         | M2-78-46      | N.L.              | 8.1  | 510          |          |
|  |                   | 06/08/78                  | 24hr comp.         | M2-78-51      | N.L.              | 7.85 | 515          |          |
|  |                   | 06/13/78                  | 24hr comp.         | M2-78-56      | N.L.              | 7.9  | 500          |          |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION             | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS             |
|--|---|---------------------------|--------------------|---------------|-------------------|------|--------------|----------------------|
| STELCO<br>- Hamilton (WC)<br>(Continued) |   | 06/14/78                  | 24hr comp.         | M2-78-62      | N.L.              | 8.0  | 510          |                      |
|  |   | 06/15/78                  | 24hr comp.         | M2-78-67      | N.L.              | 8.15 | 515          |                      |
|  |   | 06/20/78                  | grab               | M2-78-88      | N.L.              | 7.3  | 540          |                      |
|  |   | 06/27/78                  | 24hr comp.         | M2-78-100     | N.L.              | 8.45 | 560          |                      |
|  |   | 06/29/78                  | 24hr comp.         | M2-78-114     | N.L.              | 8.6  | 580          |                      |
|  |   | 07/05/78                  | 24hr comp.         | M2-78-118     | N.L.              | 7.9  | 550          |                      |
|  |   | 07/07/78                  | 24hr comp.         | M2-78-122     | N.L.              | 7.3  | 480          |                      |
|  |   | 07/11/78                  | 24hr comp.         | M2-78-129     | N.L.              | 8.75 | 505          |                      |
|  |   | 07/12/78                  | 24hr comp.         | M2-78-138     | N.L.              | 7.4  | 545          |                      |
|  |   | 07/23/80                  | grab               | 80-111        | N.L.              | 8.6  | 430          |                      |
|  | Combined<br>Lagoon<br>(East side<br>lagoon,<br>filter plant<br>& Depew St.<br>sewers) [e] | 06/28/78                  | grab               | M2-78-104     | N.L.              | 7.9  | 580          |                      |
|  |   | 07/11/78                  | grab               | M2-78-136     | N.L.              | 7.9  | 520          |                      |
|  |   | 07/17/78                  | grab               | M2-78-150     | N.L.              | 5.8  | 560          |                      |
|  |   | 07/18/78                  | grab               | M2-78-155     | N.L.              | 7.4  | 570          |                      |
|  |   | 07/19/78                  | grab               | M2-78-159     | N.L.              | 6.8  | 525          |                      |
|  | Depew Street<br>Sewer [e]   | 06/27/78                  | grab               | M2-78-107     | N.L.              | 7.05 | 620          |                      |
|  |   | 07/11/78                  | grab               | M2-78-133     | N.L.              | 7.43 | 540          |                      |
|  |   | 07/17/78                  | grab               | M2-78-149     | 44 %              | 2.4  | 1180         | - LC50 range 40-50%  |
|  |   | 07/18/78                  | grab               | M2-78-154     | 62 %              | 6.3  | 580          | - LC50 range 40-100% |
|  |   | 07/19/78                  | grab               | M2-78-158     | N.L.              | 6.5  | 540          |                      |
|  | Filtration<br>(East Side) [e]   | 06/27/78                  | grab               | M2-78-105     | N.L.              | 8.3  | 560          |                      |
|  |   | 07/11/78                  | grab               | M2-78-134     | N.L.              | 7.7  | 540          |                      |
|  |   | 07/11/78                  | grab               | M2-78-151     | N.L.              | 6.75 | 550          |                      |
|  |   | 07/18/78                  | grab               | M2-78-156     | N.L.              | 8.35 | 570          |                      |
|  |   | 07/19/78                  | grab               | M2-78-160     | N.L.              | 6.9  | 525          |                      |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION             | EFFLUENT                                     | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCT-<br>TIVITY | COMMENTS                           |
|--|--|---------------------------|--------------------|---------------|-------------------|------|--------------------|------------------------------------|
| STELCO<br>- Hamilton (WC)<br>(Continued) | Lagoon<br>Discharge [e]                      | 04/05/78                  | grab               | 76-43         | 75 %              | 7.6  | 450                | - unaerated<br>LC50 range 56-100 % |
|  | Intake [s]                                   | 06/06/78                  | grab               | 77-83         | N.L.              | 8.0  | 430                |                                    |
|  | North Trunk<br>Sewer [e]                     | 09/09/78                  | grab               |               | 56 %              |      |                    | - unaerated<br>LC50 range 32-100 % |
|  |  | 05/10/76                  | grab               | 76-59         | N.L.              | 7.3  | 500                | - unaerated                        |
|  |  | 06/06/78                  | grab               | 77-77         | N.L.              | 8.1  | 480                |                                    |
|  | Coke Oven<br>byproducts<br>recovery area [p] | 06/06/77                  | grab               | 77-82         | N.L.              | 8.1  | 430                |                                    |
|  | East Side<br>Lagoon [e]                      | 06/23/69                  | grab               |               | N.L.              |      |                    | - red belly dace used<br>unaerated |
|  |  | 08/25/75                  |                    |               |                   |      |                    | - red bell dace used<br>unaerated  |
|  |  | 06/06/77                  | grab               | 77-76         | N.L.              | 8.0  | 460                | - filter building                  |
|  |  | 06/06/77                  | grab               | 77-75         | N.L.              | 7.6  | 440                |                                    |
|  | E Blast<br>Furnace<br>Thickener Overflow [p] | 06/06/77                  | grab               | 77-81         | 75.7 %            | 7.6  | 740                |                                    |
|  | Hot Strip                                    | 04/05/76                  | grab               | 76-44         | 62 %              | 7.1  | 620                | - unaerated                        |
|  | Finishing                                    | 05/10/76                  | grab               | 76-60         | 32 %              | 11.4 | 915                | - unaerated                        |
|  | Mill -<br>black water [p]                    | 06/06/77                  | grab               | 77-80         | N.L.              | 8.7  |                    |                                    |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                   | EFFLUENT   | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH  | CONDUCTIVITY | COMMENTS                             |
|--|--|---------------------------|--------------------|---------------|-------------------|-----|--------------|--------------------------------------|
| STELCO   |  |                           |                    |               |                   |     |              |                                      |
| - Hamilton (WC)                                | B,C, & D   | 09/09/75                  | grab               |               | 1.3 %             |     |              | - unaerated                          |
| (Continued)                                    | Blastfurnace   | 04/05/76                  | grab               | 76-41         | 0.86 %            | 7.1 | 650          | - unaerated                          |
|  | Thickener [p]  | 06/06/77                  | grab               | 77-79         | 4.2 %             | 7.4 | 540          |                                      |
|  |  | 01/12/78                  | grab               | 78-1          | 5.6 %             | 7.4 | 750          | - LC50 range 1-10 %                  |
|  |  | 01/12/78                  | grab               | 78-1          | 0.7 %             | 7.7 | 700          | - LC50 range 0.5-1 %                 |
|  |  | 01/12/78                  | grab               | 78-1          | >10 %*            | 7.7 | 1745         | - *48 hr test -<br>10 % dead in 10 % |
|  |  | 03/13/78                  | grab               | 78-12         | 0.7 %             | 8.0 | 920          | - LC50 range 0.5-1 %                 |
|  | West Side<br>Open Cut<br>-before once<br>thru from blast<br>furnace [p]    | 07/23/80                  | grab               | 80-114        | N.L.              | 8.0 | 470          |                                      |
|  | Once thru<br>water from blast<br>furnace recirculating<br>system sewer [p] | 07/23/80                  | grab               | 80-113        | 2.0 %             |     |              |                                      |
| STELCO   |  |                           |                    |               |                   |     |              |                                      |
| - Nanticoke (WC)                               | Final [e]  | 08/10/80                  | grab               | 80-131        | N.L.              | 8.3 | 600          |                                      |
|  |  | 08/18/80                  | grab               | 80-136        | N.L.              | 8.6 | 850          |                                      |
| STELCO Welland<br>Tube Works<br>- Welland (WC) | Lagoon Outfall   | 09/23/81                  | 24hr comp.         | 81-134        | N.L.              | 7.1 | 285          |                                      |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                      | EFFLUENT  | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIVITY | COMMENTS  |
|---|---|---------------------------|--------------------|---------------|-------------------|------|--------------|---|
| STRATHCONA PAPER<br>CO. LTD.<br>- Strathcona (SE) | Lagoon #9<br>(Discharge to<br>Napanee River) [e]    | 06/07/76                  | grab               | M2-76-4       | 45 %              | 6.2  | 580          | - unaerated   |
|   | Lagoon #7<br>(Discharge<br>to Napanee<br>River) [e] | 06/07/76                  | grab               | M2-76-5       | 22 %              | 6.7  | 525          | - unaerated   |
|   |   | 09/13/76                  | grab               | M2-76-37      | 24 %              | 6.1  | 510          | - unaerated   |
|   |   | 07/06/77                  | grab               | M2-77-47      | N.L.              | 6.5  | 490          |   |
|   |   | 05/26/80                  | grab               | 80-79         | 20 %              | 5.7  | 510          | - high H <sub>2</sub> S concentration<br>which has liberated<br>quickly due to aeration |
|   |   | 05/26/80                  | grab               | 80-79         | >10 %             | 5.7  | 510          | - 10 % mortality in 100 %   |
|   | Spray Field<br>Runoff [e]                           | 07/12/76                  | grab               | M2-76-23      | 90 %              | 7.5  | 440          | - unaerated   |
|   |   | 05/30/77                  | grab               | M2-77-5       | N.L.              | 6.7  | 640          |   |
|   |   | 06/06/77                  | grab               | M2-77-46      | N.L.              | 6.4  | 620          |   |
|   | SUNCOR<br>- Corunna (SW)                            | Total<br>Effluent [e]     | 07/12/76           | grab          | 76-123            | N.L. | 7.8          | 500   |
| 05/29/79  |   |                           | grab               | 79-22         | N.L. *            | 8.1  | 500          | - * 24hr test   |
| 09/29/81  |   |                           | 24hr comp.         | 81-138        | N.L.              | 8.0  | 363          |   |
| Intake [s]  |   | 07/12/76                  | grab               | 76-124        | N.L.              | 8.3  | 420          | - unaerated   |
|   |   | 05/29/79                  | grab               | 79-24         | N.L.*             | 8.4  | 425          | - * 24hr test   |
| Cooling Water [p]                                 |   | 09/28/81                  | grab               | 81-140        | N.L.              |      |              |   |
| Process Water [p]                                 |   | 09/28/81                  | grab               | 81-139        | N.L.              |      |              |   |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION     | EFFLUENT                               | SAMPLE<br>DATE<br>M/ D/ Y        | SAMPLING<br>METHOD   | SAMPLE<br>NO.                   | 96-HOUR<br>-LC 50     | pH                | CONDUCT-<br>TIVITY   | COMMENTS      |
|----------------------------------|--|----------------------------------|----------------------|---------------------------------|-----------------------|-------------------|----------------------|---------------|
| TECK CORP.<br>- Cart Lake (NE)   | Outlet at<br>Cart Lake [d]             | 07/20/77<br>07/02/77             | grab<br>grab         | M1-77-43<br>M1-77-43            | N.L.<br>N.L.          | 7.3<br>7.3        | 335<br>335           | - unaerated   |
| TEXACO<br>- Nanticoke (WC)       | Final<br>Holding Pond [e]              | 06/04/79<br>06/04/79<br>04/07/81 | grab<br>grab<br>grab | 79-43<br>79-43<br>81-35         | N.L.*<br>N.L.<br>N.L. | 8.9<br>8.9<br>6.7 | 4450<br>4450<br>2200 | - *24 hr test |
| TEXASGULF<br>- Porcupine R. (NE) | Discharge<br>to Porcupine<br>River [e] | 08/09/76                         | grab                 | M1-76-21                        | N.L.                  | 6.1               | 1200                 | - unaerated   |
| TOWNSHIP DITCH                   | At Entry to<br>Polipan<br>Property [p] | 06/27/79<br>08/01/79<br>08/16/79 | grab<br>grab<br>grab | M2-79-6<br>M2-79-27<br>M2-79-36 | N.L.<br>N.L.<br>N.L.  | 8.0<br>8.0<br>8.1 | 310<br>330<br>260    |               |
|                                  | Outfall to<br>St. Clair<br>River [e]   | 06/27/79<br>08/01/79<br>08/16/79 | grab<br>grab<br>grab | M2-79-7<br>M2-79-28<br>M2-79-37 | N.L.<br>N.L.<br>N.L.  | 8.2<br>7.9<br>7.8 | 233<br>580<br>280    |               |
| TOWNSHIP DITCH<br>(continued)    | South of<br>Railway Bridge [p]         | 07/26/79                         | grab                 | M2-79-17                        | N.L.                  | 8.3               | 1800                 |               |

## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                           | EFFLUENT                           | SAMPLE<br>DATE<br>M/ D/ Y  | SAMPLING<br>METHOD   | SAMPLE<br>NO.  | 96-HOUR<br>-LC 50  | pH   | CONDUCTIVITY   | COMMENTS  |
|--|------------------------------------|--|--|--|--|--|--|---|
| TRENT VALLEY<br>PAPERBOARD MILLS<br>- Glen Miller (SE) | Final Effluent<br>[e]              | 06/14/76<br>09/13/76<br>06/06/77<br>05/26/80   | grab<br>grab<br>grab<br>grab                                 | M2-76-9<br>M2-76-56<br>M2-77-48<br>80-77                     | 50 %<br>85 %<br>>100 %<br>72 %                                     | 7.35<br>7.7<br>7.1<br>6.8                            | 230<br>225<br>240<br>345                                     | - unaerated<br>- 10 % mortality in 100 %  |
|  | Final<br>West Side [e]             | 05/26/80   | grab   | 80-78  | >100 %   | 7.0  | 285  | - 30 % mortality in 100 %   |
| TRICIL<br>- Sarnia (SW)                                | Total<br>Discharge [e]             | 04/18/77   | grab   | 77-49  | 22 %   | 8.5  | 2600   |   |
| UNION CARBIDE<br>- Lindsay (C)                         | Discharge<br>Pipe [m]              | 02/16/76<br>03/08/76   | grab<br>grab   | 76-2<br>76-12  | 18 %<br>11.2 %   |  |  | - LC50 range 10-32 %  |
|  | Intake [s]                         | 02/15/77<br>03/06/78   | grab<br>grab   | 77-9<br>78-6   | N.L.<br>N.L.   | 7.7<br>8.2   | 440<br>600   |   |
|  | Clarifier<br>decant<br>(Final) [m] | 02/15/77<br>02/15/77<br>02/15/77<br>02/15/77<br>03/06/78<br>03/06/78<br>03/06/78<br>03/06/78 | grab<br>grab<br>grab<br>grab<br>grab<br>grab<br>grab<br>grab | 77-8<br>77-8<br>77-8<br>77-8<br>78-5<br>78-5<br>78-5<br>78-5 | 23 %<br>>100 %<br>N.L.<br>39 %<br>35 %<br>23.5 %*<br>37 %<br><10 % | 8.7<br>8.0<br>8.0<br>7.5<br>8.9<br>8.9<br>8.4<br>8.4 | 5220<br>6800<br>6800<br>4200<br>5200<br>5200<br>2400<br>2400 | - 5 % mortality in 100 %<br>unaerated clin. treated<br>- clin. treated<br>- LC50 range 30-50 %<br>stored in 13 days<br>- unaerated * 24 hr test<br>- stored 10 days<br>- stored 10 days - unaerated<br>10 % killed all fish in<br>96 hrs. |



## DATA SUMMARY SHEET

| COMPANY NAME<br>and LOCATION                  | EFFLUENT                           | SAMPLE<br>DATE<br>M/ D/ Y | SAMPLING<br>METHOD | SAMPLE<br>NO. | 96-HOUR<br>-LC 50 | pH   | CONDUCTIV-<br>TIVITY | COMMENTS                                   |
|---|------------------------------------|---------------------------|--------------------|---------------|-------------------|------|----------------------|--|
| UNION CARBIDE<br>- Lindsay (C)<br>(Continued) |                                    | 03/06/78                  | grab               | 78-5          | 74 %              | 8.9  | 4950                 | - clin. treated                            |
|   |                                    | 04/14/78                  | grab               | 78-16         | 34 %              | 8.3  | 5200                 |  |
|   |                                    | 04/14/78                  | grab               | 78-16         | N.L.              | 8.3  | 5200                 | - clin. treated                            |
| UNIROYAL<br>- Elmira (WC)                     | Influent<br>(Carbon<br>Filter) [p] | 09/20/76                  | grab               | 76-159        | 6 %               | 8.0  | 20000                | - LC50 range 5-7 %                         |
|   |                                    | 04/12/77                  | grab               | 77-40         | 3.9 %             | 8.5  | 33000                | - LC50 range 3-5 %                         |
|   | Effluent<br>(Carbon<br>Filter) [e] | 09/20/76                  | grab               | 76-160        | 45 %              | 8.4  | 20000                |  |
|   |                                    | 09/20/76                  | grab               | 76-161        | 24 %              | 8.4  | 20000                | - pH adjusted to 6.6<br>LC50 range 20-30 % |
|   |                                    | 04/12/77                  | grab               | 77-41         | 22 %              | 8.7  | 31000                |  |
|   | South Lagoon [p]                   | 07/14/81                  | grab               | 81-107        | 82 %              | 4.9  | 16500                |  |
|   | Cooling water [e]                  | 07/14/81                  | grab               | 81-108        | N.L.              | 7.77 | 730                  | -discharge to<br>Canoagagique Creek        |
|   | Town Water [s]                     | 07/14/81                  | grab               | 81-109        | N.L.              | 7.81 | 740                  |  |
| WELLAND CHEMICAL<br>- Sarnia (SW)             | Downstream of<br>Culvert #2        | 07/28/81                  | grab               | 81-114        | 11 %              | 4.35 | 3500                 |  |
| WILANOUR RESOURCES<br>- Red Lake (NW)         | Tailings Pond<br>Decant [e]        | 07/16/79                  | grab               | 79-88         | N.L.              | 9.3  | 350                  | -unaerated                                 |
| WILLROY MINES<br>- Kirkland Lake (NE)         | Tailings Pond<br>Decant [e]        | 10/29/80                  | grab               | 80-205        | N.L.              | 8.3  | 925                  |  |
| WINDSOR BUMPER<br>- Windsor (SW)              | Final Effluent [e]                 | 08/18/75                  | grab               |               | 64 %              |      |                      |  |